

Collaborative Mobility in Asia

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Facts & Challenges

- Asia's urban population - 44 million people increase every year
- 80% of Asia's new economic growth are from urban cities
- Road congestion costs Asian economy an estimated 2 - 5% of GDP

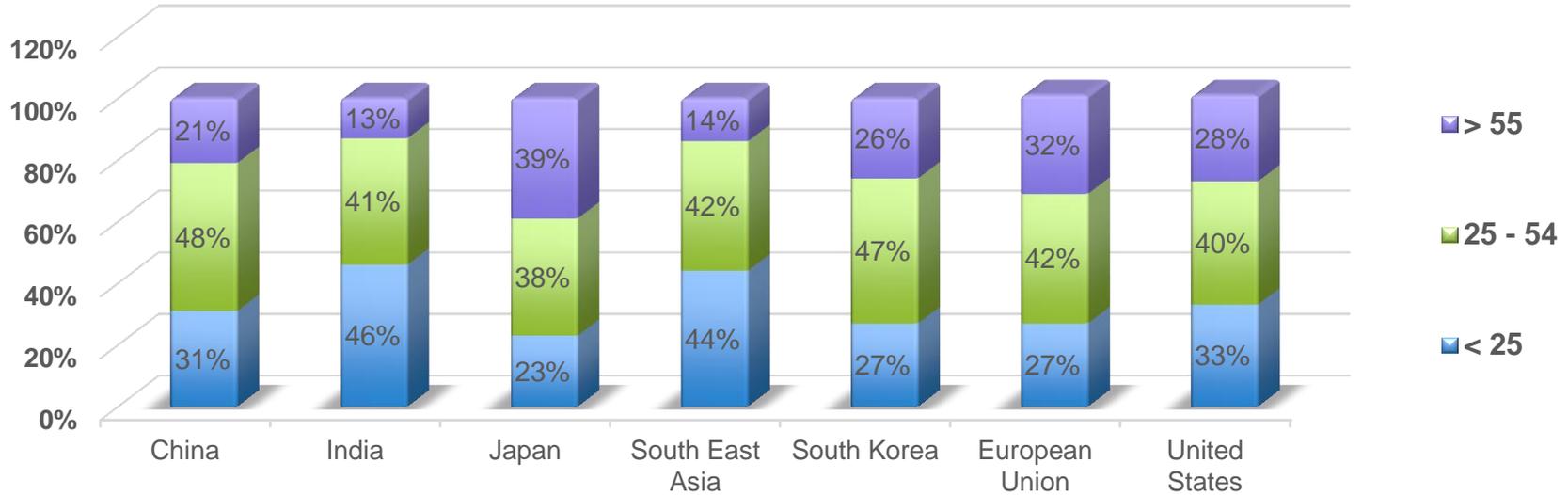
Facts & Challenges

- Population

Country	Total Population (Million)	Urban Population (%)
China	1,398	56.2%
India	1,252	32.7%
Japan	127	93.5%
South East Asia (ASEAN)	635	47.6%
South Korea	49	82.5%
Germany	81	75.3%
United Kingdom	64	82.6%
United States	321	81.6%

Facts & Challenges

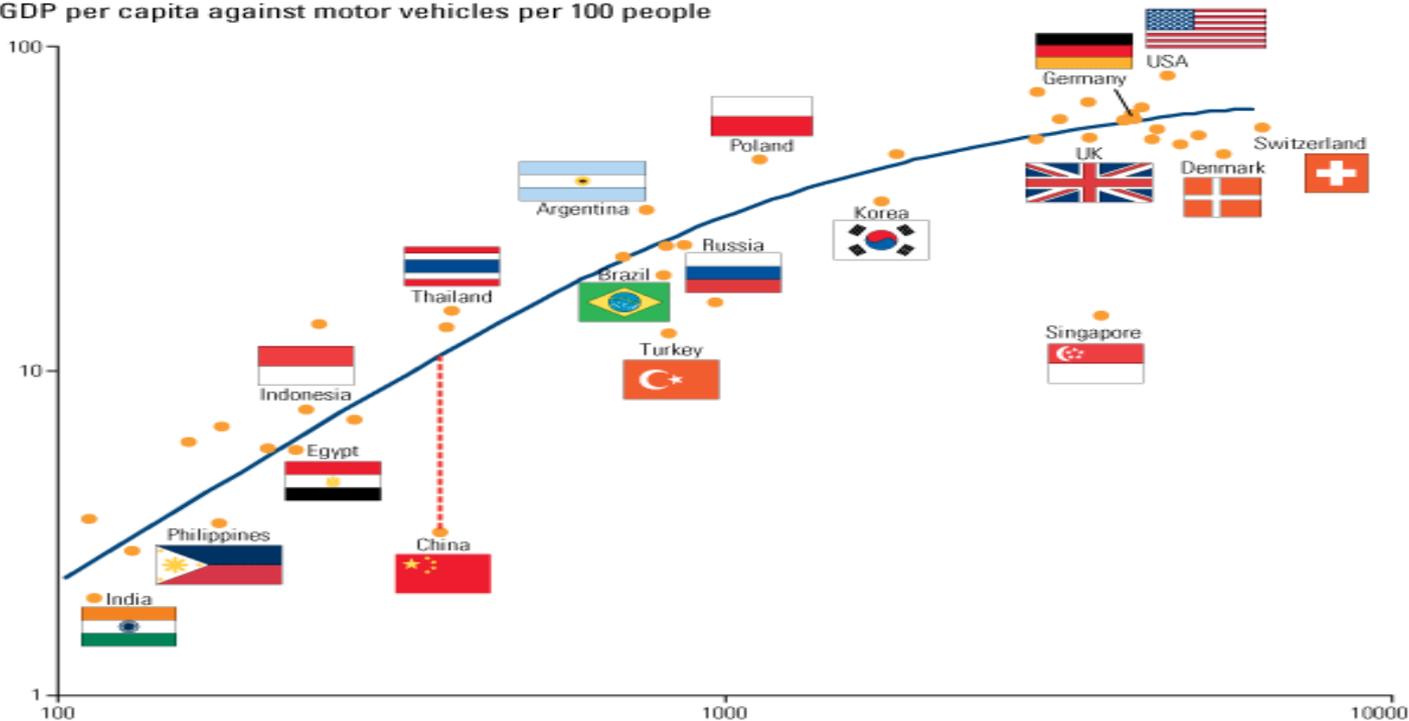
- Age Demographics



Imagine Asian Younger Population Aspires To Have Their Own Car...

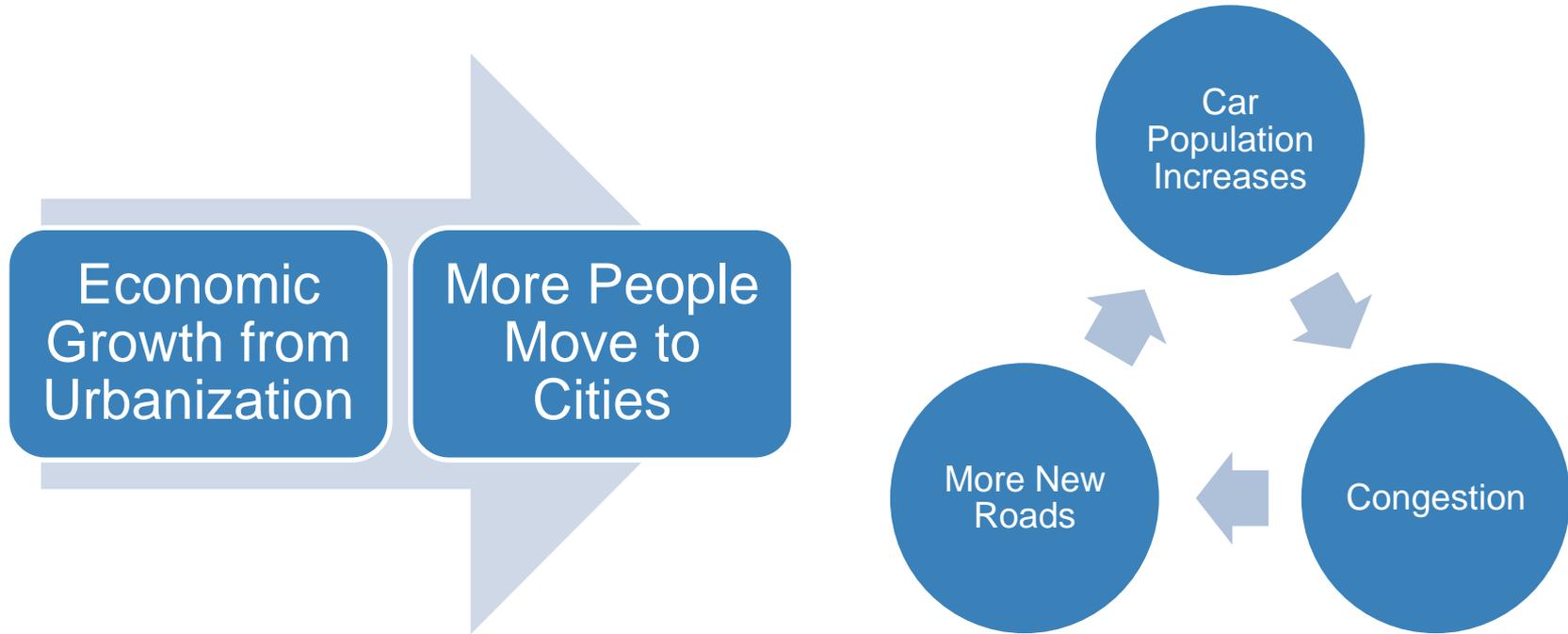
What Is Happening...

Catch Up Potential in Vehicle Penetration for Several Emerging Market Countries
GDP per capita against motor vehicles per 100 people



Source: World Bank

What Is Happening



Is This Way Sustainable?

Common Issues

Beijing Pic: www.ebeijing.gov.cn (Xinhua Photo)



Ho Chi Minh City Pic: pcgladiator.blogspot.com



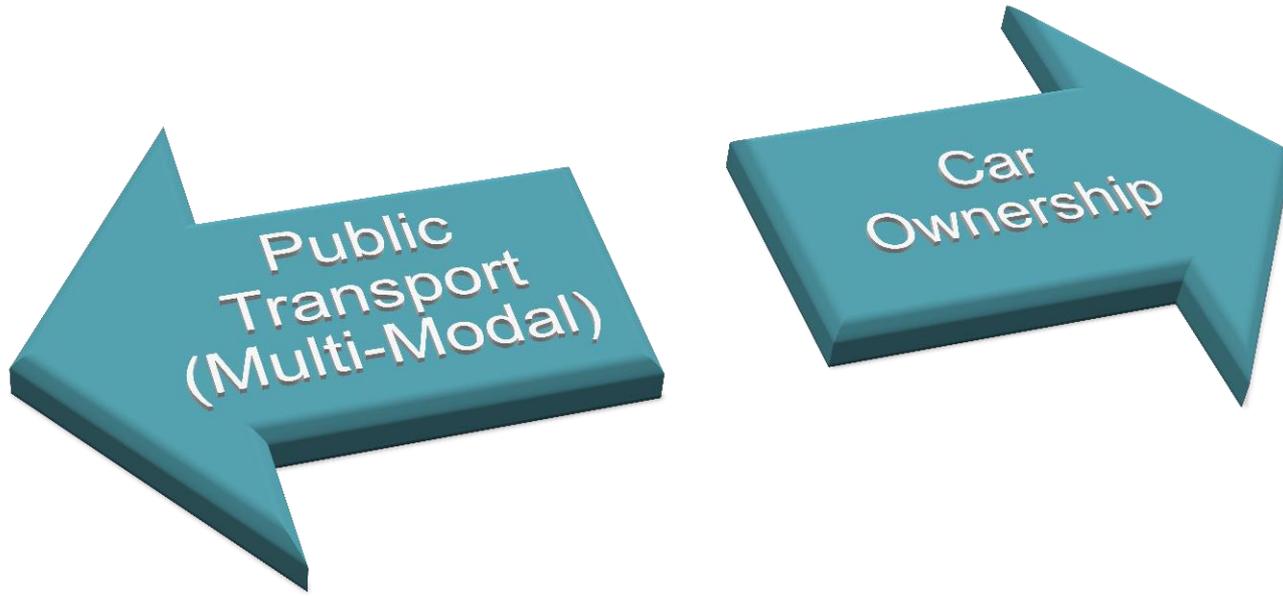
Jakarta Pic: toomuchnews.com



Need for a sustainable transportation solution...

Recognizing The Issues

- Developing countries have the opportunity to choose their development path

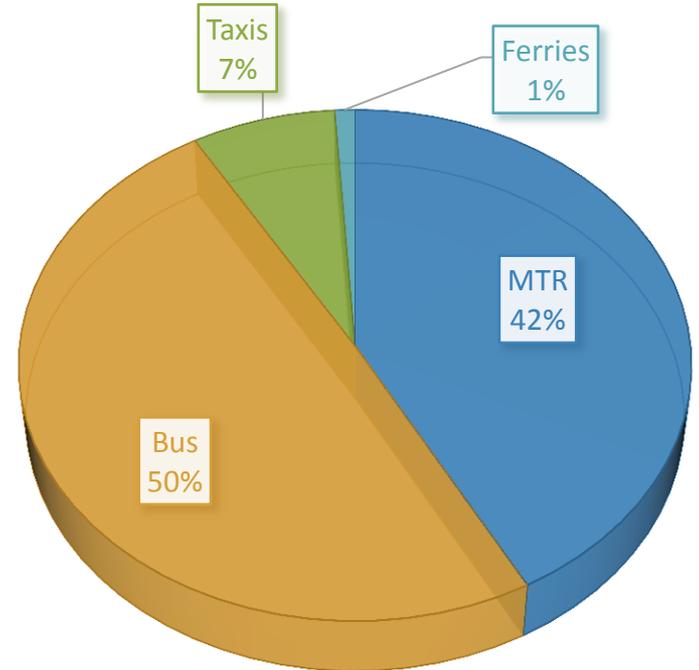


Examples... Hong Kong

- Multi-Modal Transportation

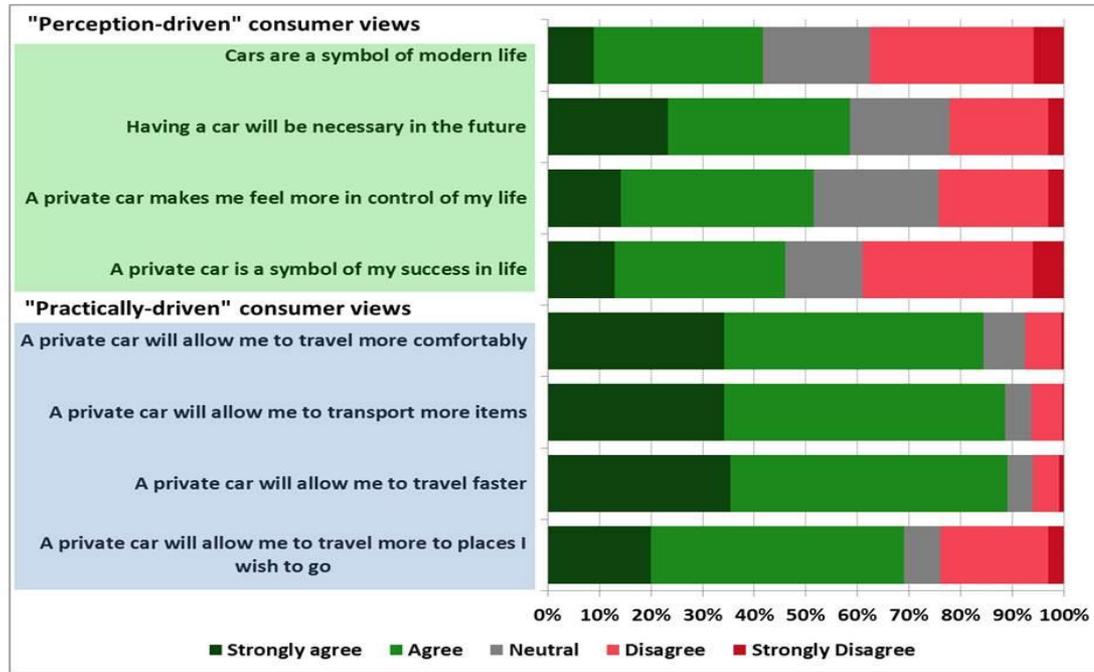
- ✓ The integration of road building, mass transit, and demand management halved vehicle ownership by 1985, with taxis making up 10 percent of passenger cars

Changing Gears: Green Transport for Cities by World Bank



Hong Kong Public Transport (May 2016)
About 12.46 M Passenger Per Day

Recognizing The Issues



Source: C. Zhu et al., *Journal of Transport Geography*

Future passenger car fleet growth in China will hinge upon Three Ps:

Perception, Practicality and Policy

From: *China SignPost*

Areas To Focus

- Mobility and Access
 - ✓ Promote the usage of public transport
 - ✓ Integration of land use and transport planning
 - ✓ Reduce travel and optimise traffic flows
 - ✓ Improve vehicle usage for more efficient travel

Areas To Focus

- Effective public transport system is important
- Using technology to provide better experience to commuters



*Picture From CITIES AT A CROSSROADS:
Unlocking the Potential for Green Urban Transport
By World Bank and Asian Development Bank*

Areas To Focus

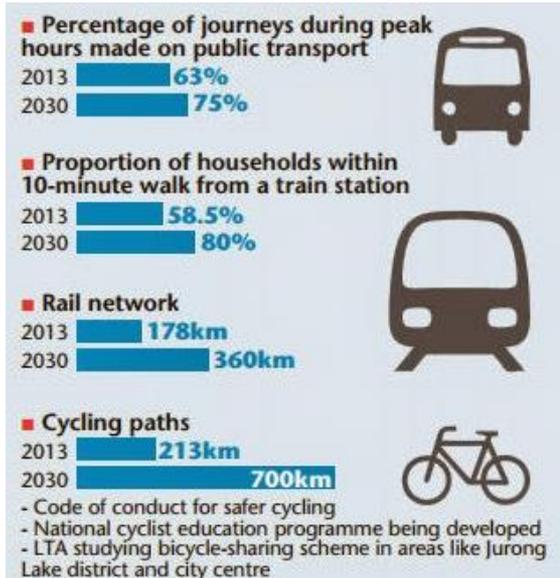
- Offering options
- Changing the perceptions → Access vs. Owning



From HDB Singapore

Examples... Singapore

- Improving the public transport, building car-lite society and liveable city



Another record

Average daily ridership ('000 passenger trips)	2015	2014
MRT	2,879	2,762
LRT	152	137
Bus	3,891	3,751
Taxi	1,010	1,020

Source: LAND TRANSPORT AUTHORITY
STRAITS TIMES GRAPHICS

Ride Hailing Apps

CHINADAILY ASIA

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Thursday, July 28, 2016, 22:02

China legalizes car-hailing services

By Agencies



A customer checks a car-hailing service app on his smartphone on Oct, 2015. (Photo/China Daily)

About 96.6 million Chinese, or about one in every 14, hailed a taxi via online car-hailing services in 2015, while 21.6 million people booked private cars online, according to China Internet Network Information Center

Ride Hailing Apps

**Malaysia to legalise
Uber, Grab services**
14 August 2016



The ride-hailing market in Southeast Asia is forecast to grow to \$13.1 billion by 2025 from \$2.5 billion last year, according to recent data.

Photo: Reuters

Wall Street Journal, 4 August 2016

Ride Hailing (Challenges)

Jakarta police crack down on Uber, Grab, and Go-Jek – again



Nadine Freischlad
2:43 PM at Aug 1, 2016

89



In March, thousands of public transport drivers came together in protest of Uber and Grab in Jakarta.

From Tech In Asia

Business

FOLLOW MASHABLE >

Taiwan slaps Uber with \$6.3 million tax bill as it mulls kicking Uber out

1.4k
SHARES

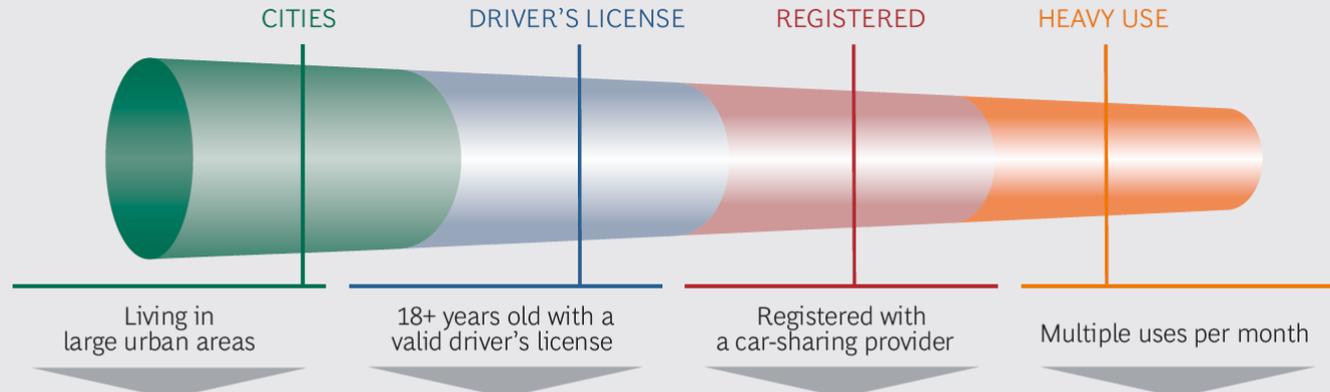


#ASIA: LINDA/TW/SHANE/VEHIVA

From Mashable Asia

Growth of Carsharing Service

EXHIBIT 4 | Approximately 35 Million Drivers Will Use Car-Sharing Services by 2021



	CITIES Living in large urban areas	DRIVER'S LICENSE 18+ years old with a valid driver's license	REGISTERED Registered with a car-sharing provider	HEAVY USE Multiple uses per month
WORLD	385 million	153 million	35 million	3.5 million
EUROPE	81 million	46 million	14 million	1.4 million
NORTH AMERICA	50 million	31 million	6 million	0.6 million
ASIA-PACIFIC	253 million	75 million	15 million	1.5 million
GERMANY	13 million	7 million	2 million	0.2 million

Sources: Statista; BCG analysis.

Carsharing – Growing Trend



Urbanization

Policy Changes
(Pollution, Car
Ownership etc.)

Better Public
Transport
Network

Advances in
Technology

Changing
Consumer
Mind Sets
(Attitude
Towards
Owning Vs.
The Sharing
Economy)

**WHAT'S MINE IS
YOURS**

HOW COLLABORATIVE CONSUMPTION
IS CHANGING THE WAY WE LIVE

Rachel Botsman and Roo Rogers

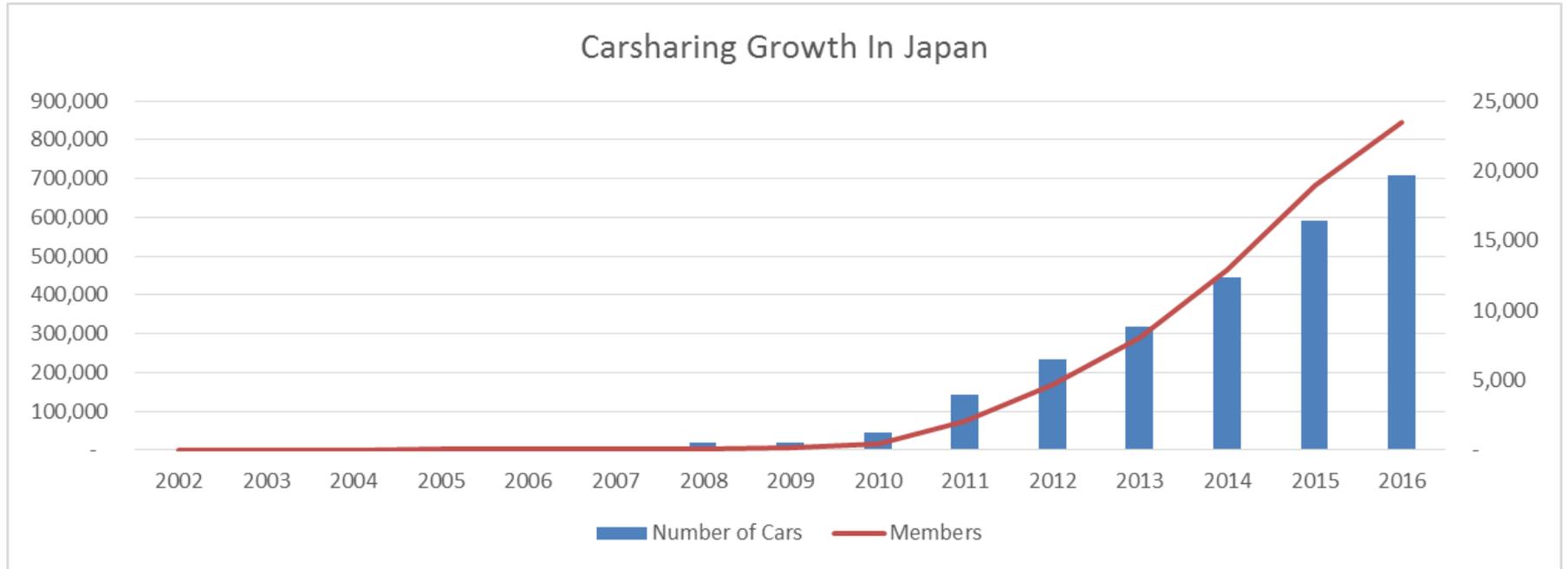
Carsharing In Asia

- Summary

Country	Number of Cars	Number of Users
Singapore	400	10,000
Japan	19,717	846,240
China	6,578	769,334
Korea	6,900	2,700,000
Malaysia	16	N/A
India	2,004	175,357
Total	35,615	4,500,931

Excludes P2P carsharing

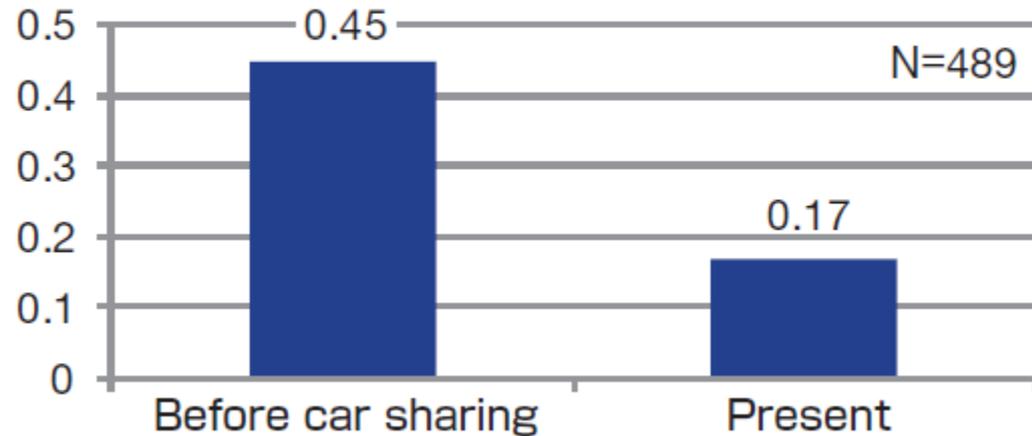
Carsharing Experience (Japan)



As at April, 2016. From Foundation for Promoting Personal Mobility and Ecological Transportation

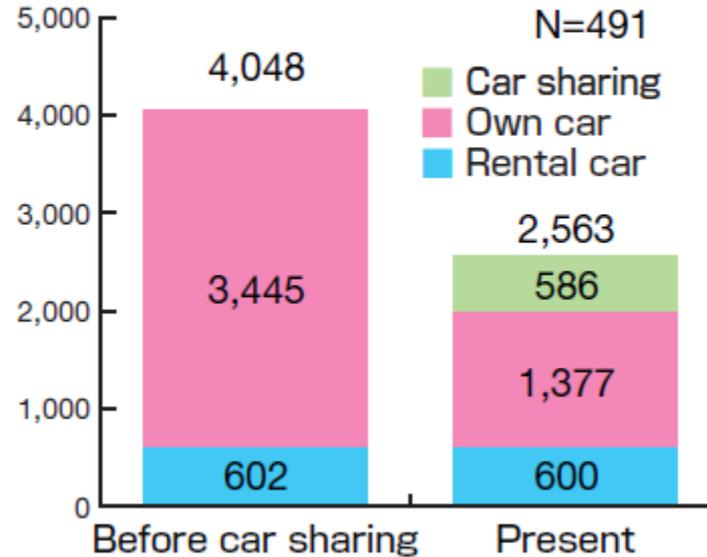
Carsharing Experience (Japan)

● Change in average number of automobiles owned per household



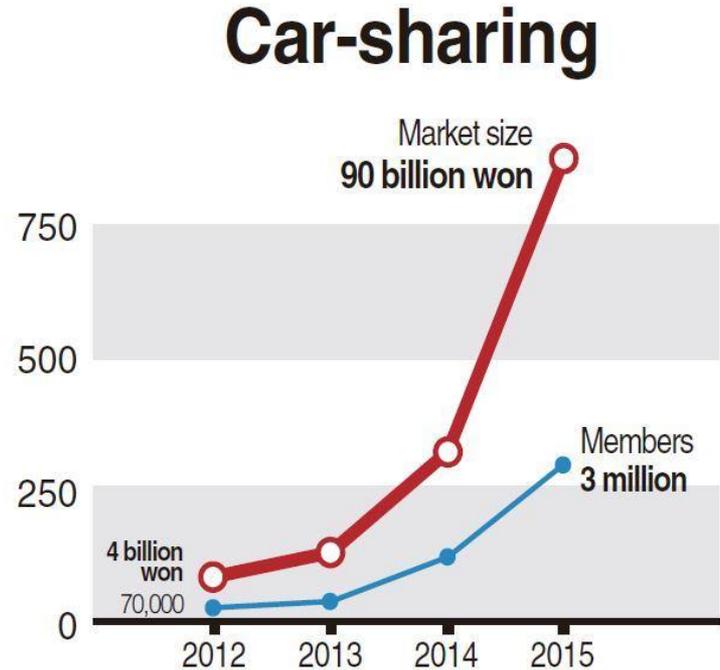
Carsharing Experience (Japan)

- Changes in annual total distance driven (km/year/household)



Carsharing Experience (Korea)

- 3 million carsharing users
- Market has grown in value from 4 billion won in 2012 to an estimated 90 billion won as of 2015



Source: Companies

1 Euro = 1,263 won

Carsharing Experience (Korea)

- SoCar is looking to drive up the number of its vehicles to 6,000, 6 million members and post revenues of 100 billion won by the end of 2016.

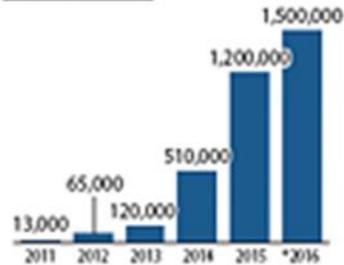


Carsharing Experience (Korea)

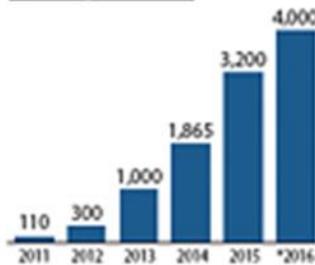
- Green Car expects to drive up the number of serviced vehicles to about 4,500 in the first half of 2016.

GreenCar growth

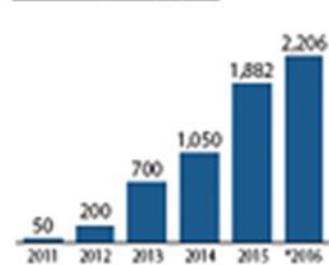
No. of customers



No. of registered cars



No. of car pick-up spots



*As of June Source: Lotte Rental

Carsharing Experience (Korea)

- According to a survey by the Seoul Institute, a think tank under the Seoul government, 85.5 percent of users were in their 20s or 30s.
- The government estimated sharing one car can eliminate about 8.5 vehicles from the city, which could save 28.9 billion won in household spending a year.

Carsharing (Taiwan)

- In October 2015, Kaohsiung City and the Bolloré Group have signed a memorandum of cooperation to launch Autolib
- Taipei City plans to start their carsharing (U-Car) end of 2016



▲台北市長柯文哲日前提出，要比照YouBike模式推出智慧電動車U-Car，讓民眾用一張悠遊卡就能租借，對此，柯文哲22日下午受訪時表示，如果用汽車共享的系統，可以讓私人機車擁有的必要性下降，這是一個想法，要怎麼做正在思考。（圖／北市府提供）

How Carsharing Can Help

- Helps to reduce the desire to own a car with when integrate well with the public transport

“...car-sharing is a vital component in the land transport jigsaw, and that it will figure in the revised Land Transport Master Plan due next year.”

Former Singapore Transport Minister Liu Tuck Yew

4th September 2012, Straits Times



reliability and also spread out demand by encouraging off-peak travel. We aim to give you more travel options, for example, by making it easier for you to catch a taxi or take part in car-sharing services. Information to facilitate your travel on the various modes will be made easily and widely available.

LIVEABLE AND INCLUSIVE COMMUNITY

From executive summary

4.4 TAXIS AND CAR-SHARING

Our overall goal is to make sure that commuters in Singapore can choose from a variety of reliable transport options to get them where they need to go. Sometimes, people need to get somewhere in a hurry or want a more personalised transport service and opt for a taxi. We are working to improve the quality and availability of two alternative options – taxis and car-sharing.

We have introduced new regulations that require taxi companies to ensure more of their taxis are on the roads through the day and not only during peak periods.

alight and guiding passengers to find their way to medical institutions.

Today, people do not have to own a car to have access to one as car-sharing can meet the occasional need for a car such as running errands or bringing family members for appointments. Car-sharing differs from conventional car rental in that it offers greater flexibility to access and use of a car, and the hirer pays only for time and mileage. We are working to facilitate the creation of more car-sharing ports in HDB estates so that this industry can make car-sharing more accessible to potential hirers.

Questions To Answer

- Views on public transport infrastructure



- Embrace disruptions combining sharing economy with traditional economy

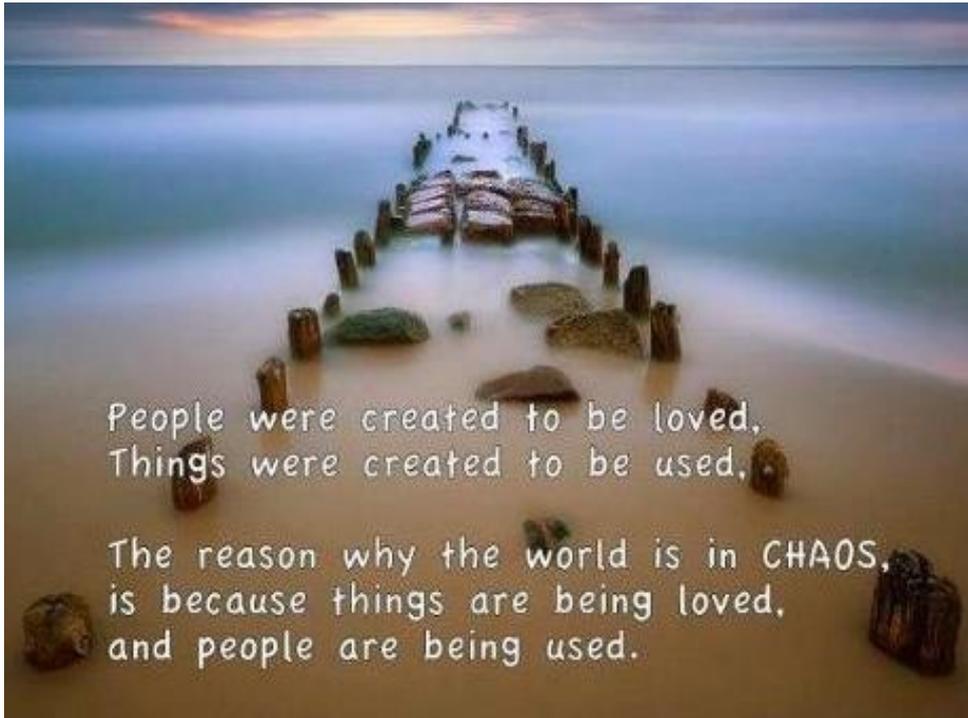
Future ...

- Example... Smart City Projects
 - ✓ Control traffic demand through ITS (Intelligent Transport Systems)
 - ✓ Autonomous Vehicles



Picture from: Ministry of Transport, Singapore

Food For Thought



“Congestion is an 80-20 type problem... If you get rid of 20 percent of the load, then the congestion measures will drop down potentially 80 percent”

*Balaji Prabhakar, Professor at Stanford University.
(Bloomberg Business Week, Dec 5th 2011)*

**What can be done?
We have to try!**



Thank you

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CarClub
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