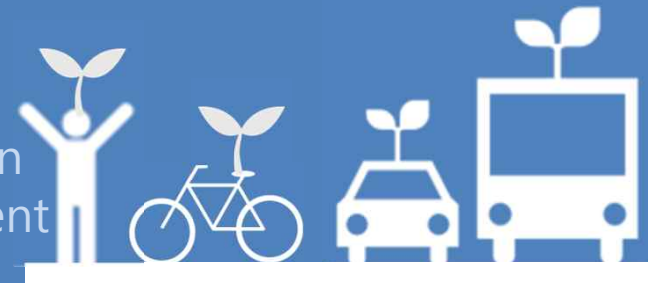


Seoul Transportation

March 2016

Urban Transportation Division
Seoul Metropolitan Government



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1 . Past & Now

1. Past & Now

Seoul transportation in the past

Mode of transportation



Walk (~ 1945)



Streetcar (1945 ~ 1970)



Bus (1971 ~ 1985)



Car (1986 ~ 2000)

Expansion of Road Network

1936



1966



1972



2000



1. Past & Now

Rapid urban Development

Gangnam (1970~)



Source: <http://photo.shinilmax.co.kr/1215>

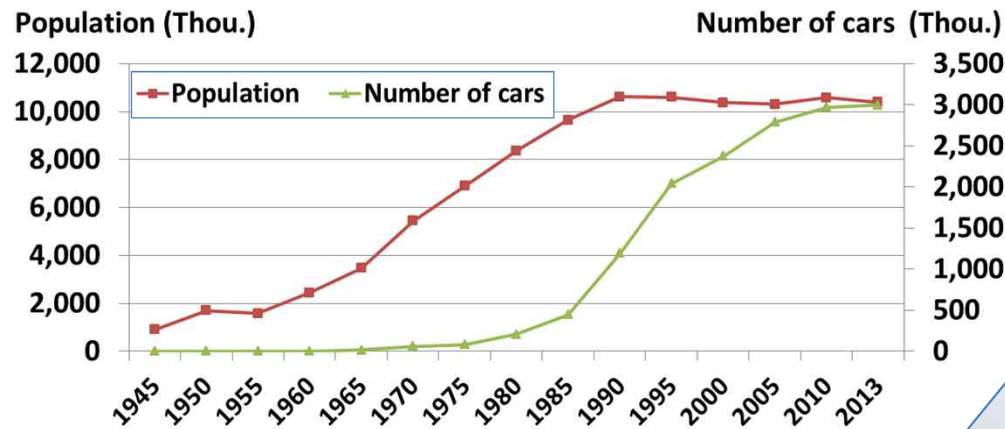
Yeouido (1967~)



1. Past & Now

Car-oriented policy

Population & number of cars



1. Past & Now

Car- oriented policy

Freeway traffic management system (FTMS)

- Start to operate in 1997
- Road length of operation: 259km



1. Past & Now

Car-oriented policy

Traffic impact analysis (TIA)

- **What are in TIA?**
 - 1) Forecast travel demand
 - 2) Examine the impacts of development on the traffic conditions
 - 3) Prepare measures to mitigate the impacts
- **Introduced in 1986 as a mandatory legal process before development**
- **Review committee members:**
Experts at transportation, road, urban planning and architecture



Process: 4 steps

Draft TIA by
developer



Submit TIA



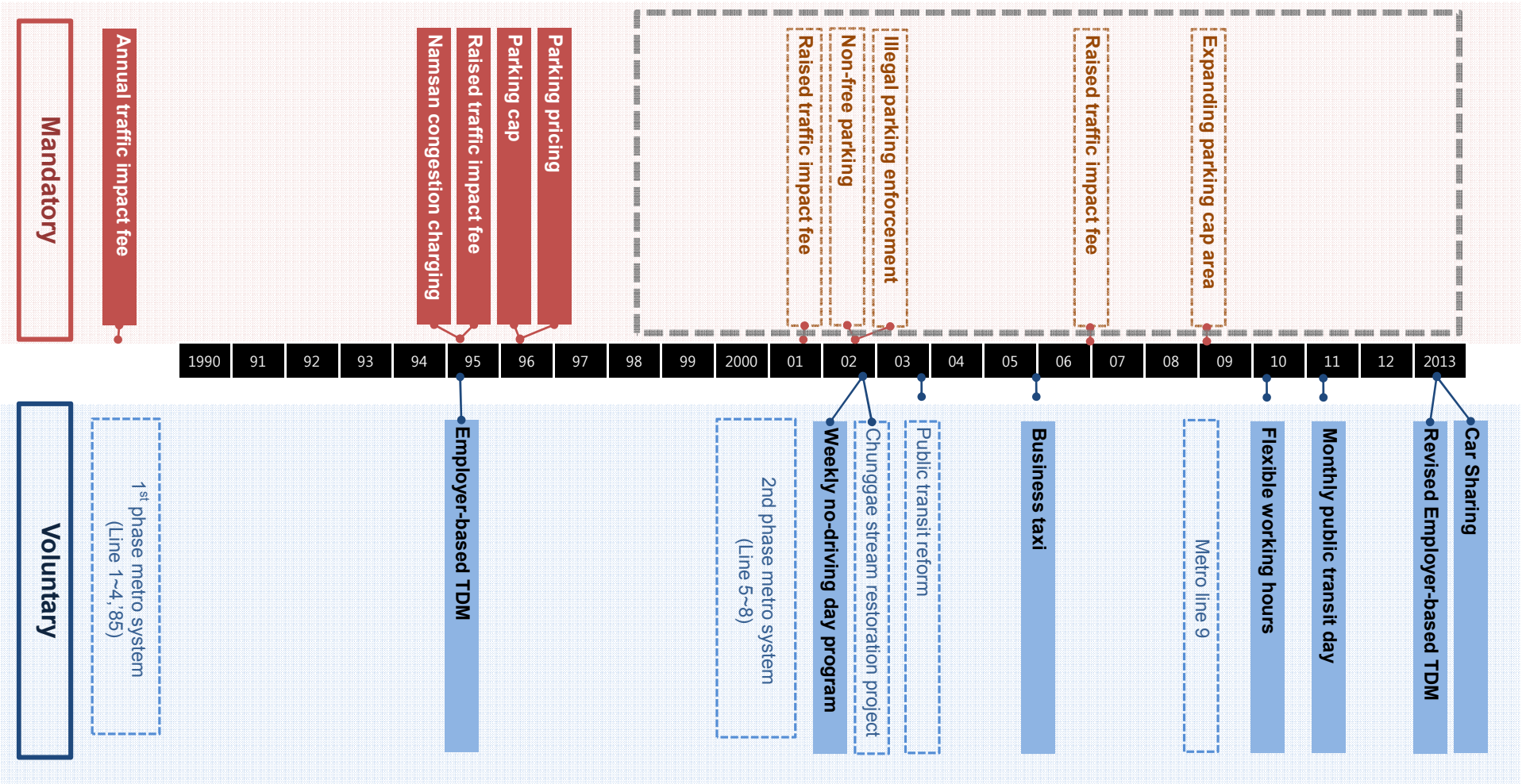
Review on the TIA



Approval

1. Past & Now

T transport demand management (TDM)



1. Past & Now

T transport demand management (TDM)

Annual traffic impact fee (ATIF)

- Floor area $\times$ Unit fee $\times$ Traffic impact factor
- Target buildings with floor area $\geq 1,000 \text{ m}^2$
- Unit fee: 350~700 KRW/ m^2
- Traffic impact factor:
0.47 (factory) ~ 9.83 (department store)

Employer-based TDM

- Alleviate ATIF if employer joins in traffic reduction programs (TRPs)
- TRPs: Parking pricing, Business tax, etc.
- Reduction rate of ATIF (each TRP): 5~30%

Parking cap

- Target: highly developed area
- Limit parking space:
Maximum 50% of regular area

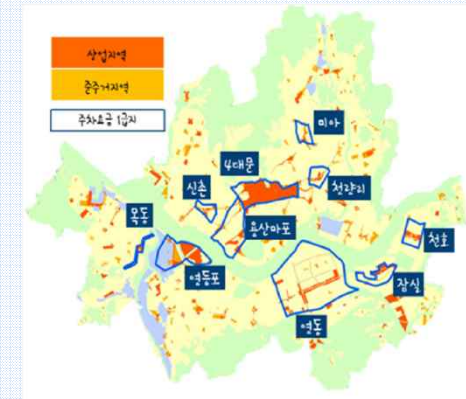
Parking cap area

1997~2008



- Total area: 13.8km²

2009~



- Total area: 16.2km²

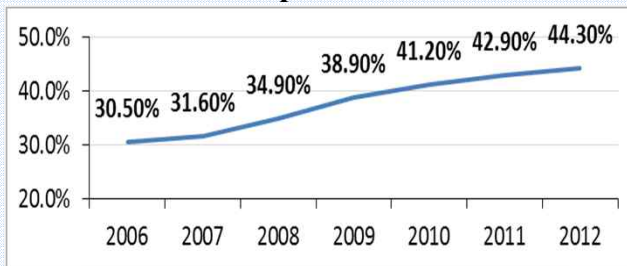
1. Past & Now

Ttransport demand management (TDM)

Weekly No-Driving Day program

➤ Start to implement in 2003

Participation rate



Cheonggyecheon Stream Restoration (2003)

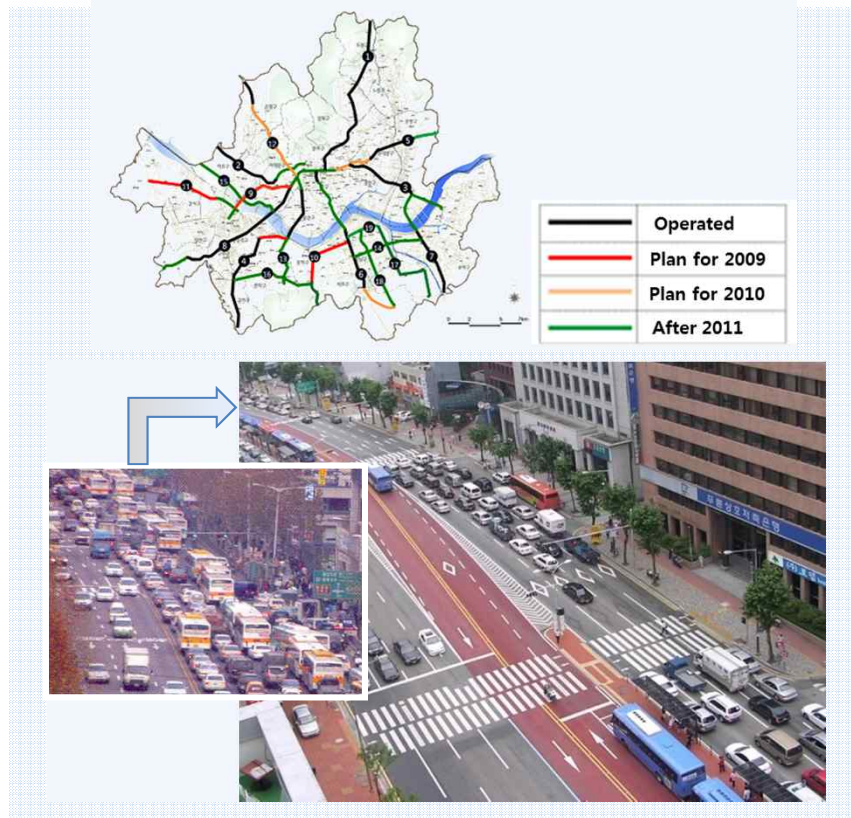


1. Past & Now

Public transportation

Bus system change (2004)

Median bus lanes



Color-coded hierarchical bus system



Inter-regional Lines



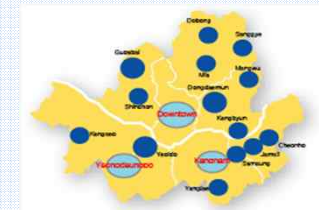
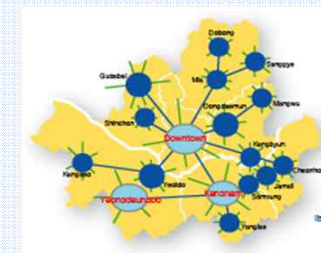
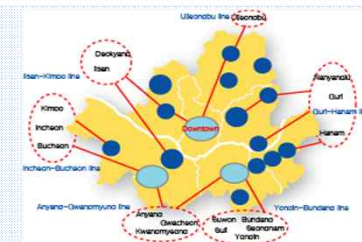
Trunk Lines



Feeder Lines



Circular Lines



1. Past & Now

Public transportation

Bus system change (2004)

Transportation Center

Before



Integrated distance-based transit fare system

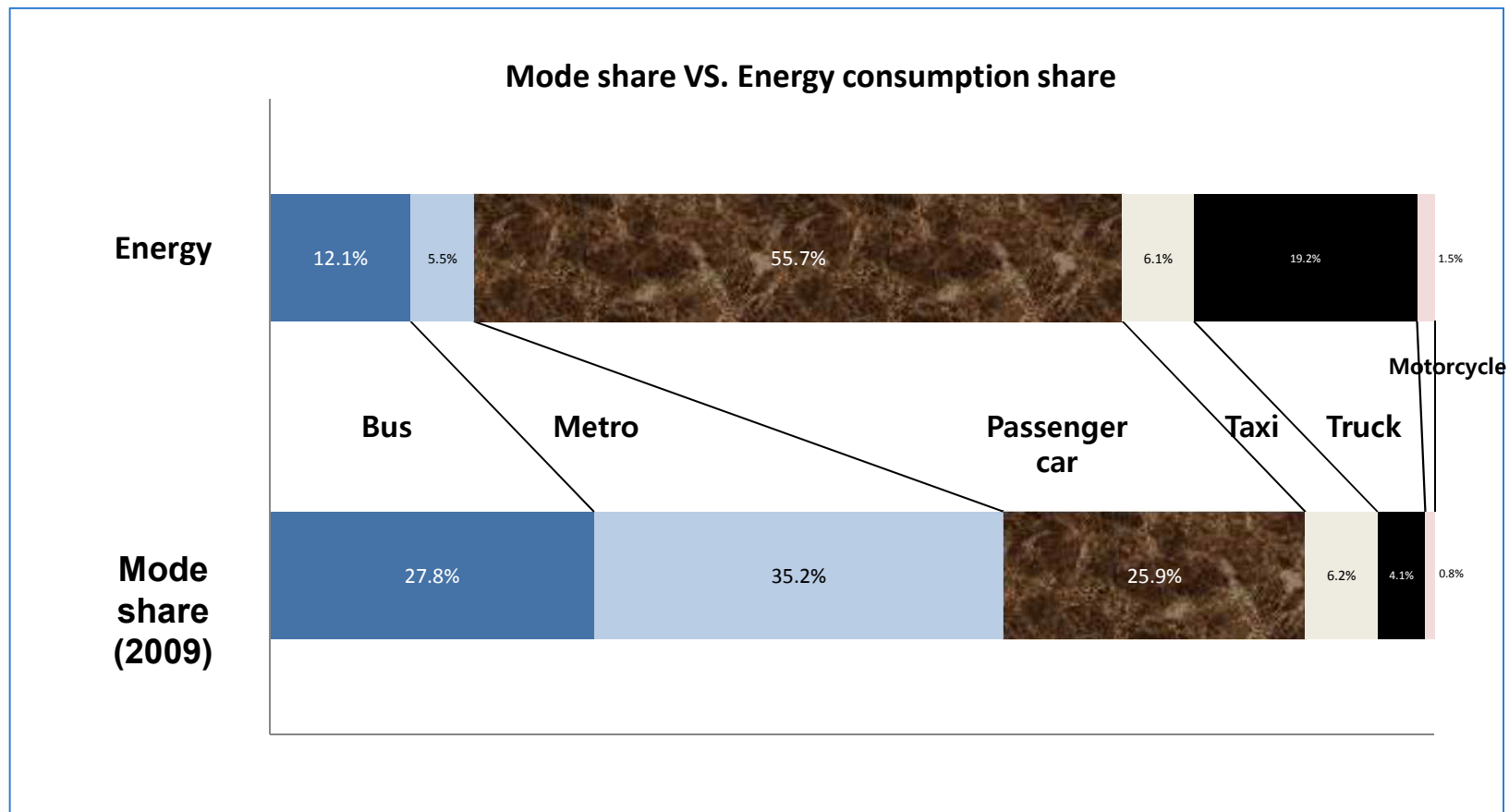
- Free transfer between bus-bus and bus-subway, free transfer within 30 minutes. (maximum 5 times)
- Introduction of transportation card
- Distance-based fare system



1. Past & Now

Mode share vs. energy consumption share

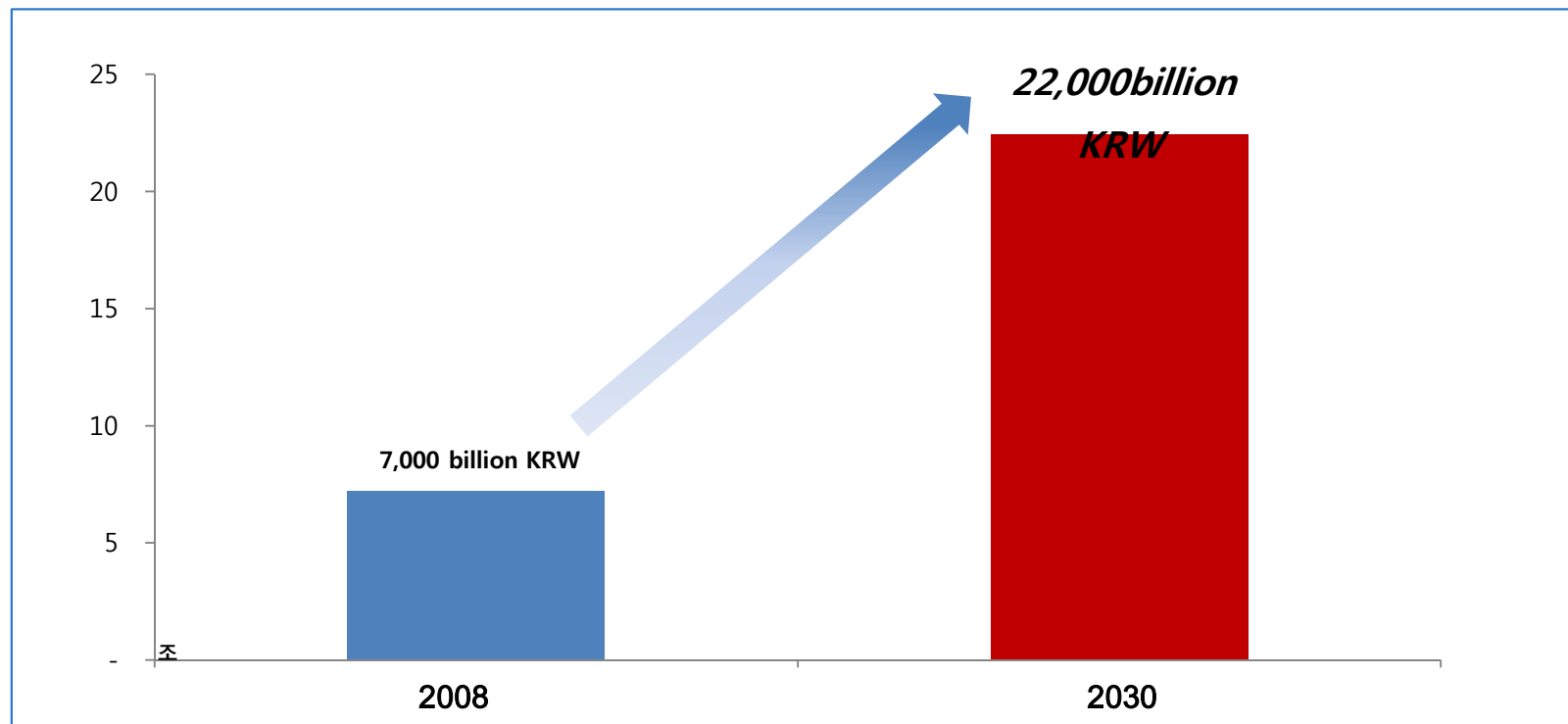
- Mode share of car **25.9%** vs. energy consumption share **55.7%**
- Mode share of subway **35.2%** vs. energy consumption share **5.5%**



1. Past & Now

Uprising congestion cost

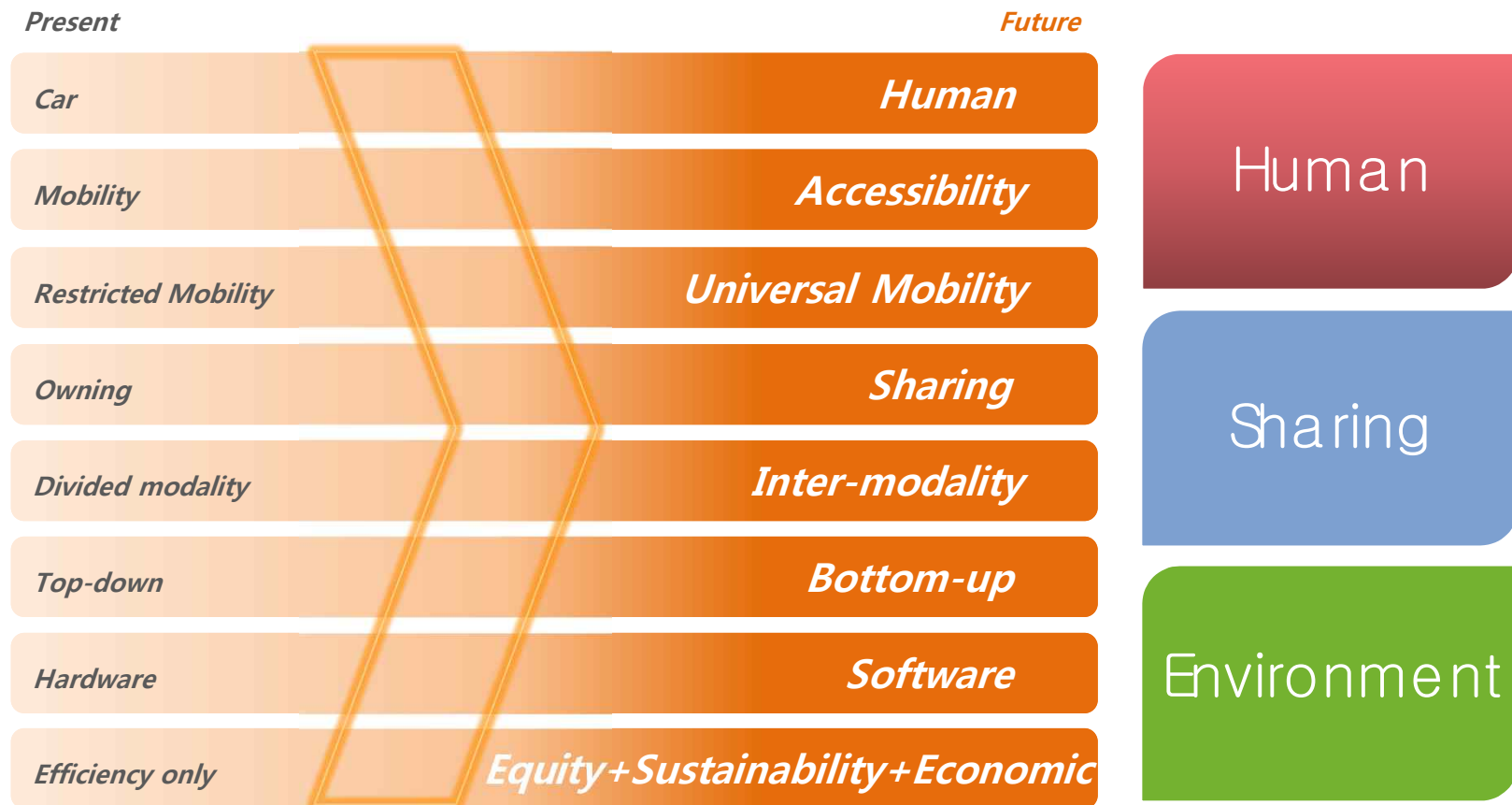
- Congestion cost 7,500 billion KRW(2009) $\Rightarrow$ 22,400 billion KRW(2030) by simple trend analysis



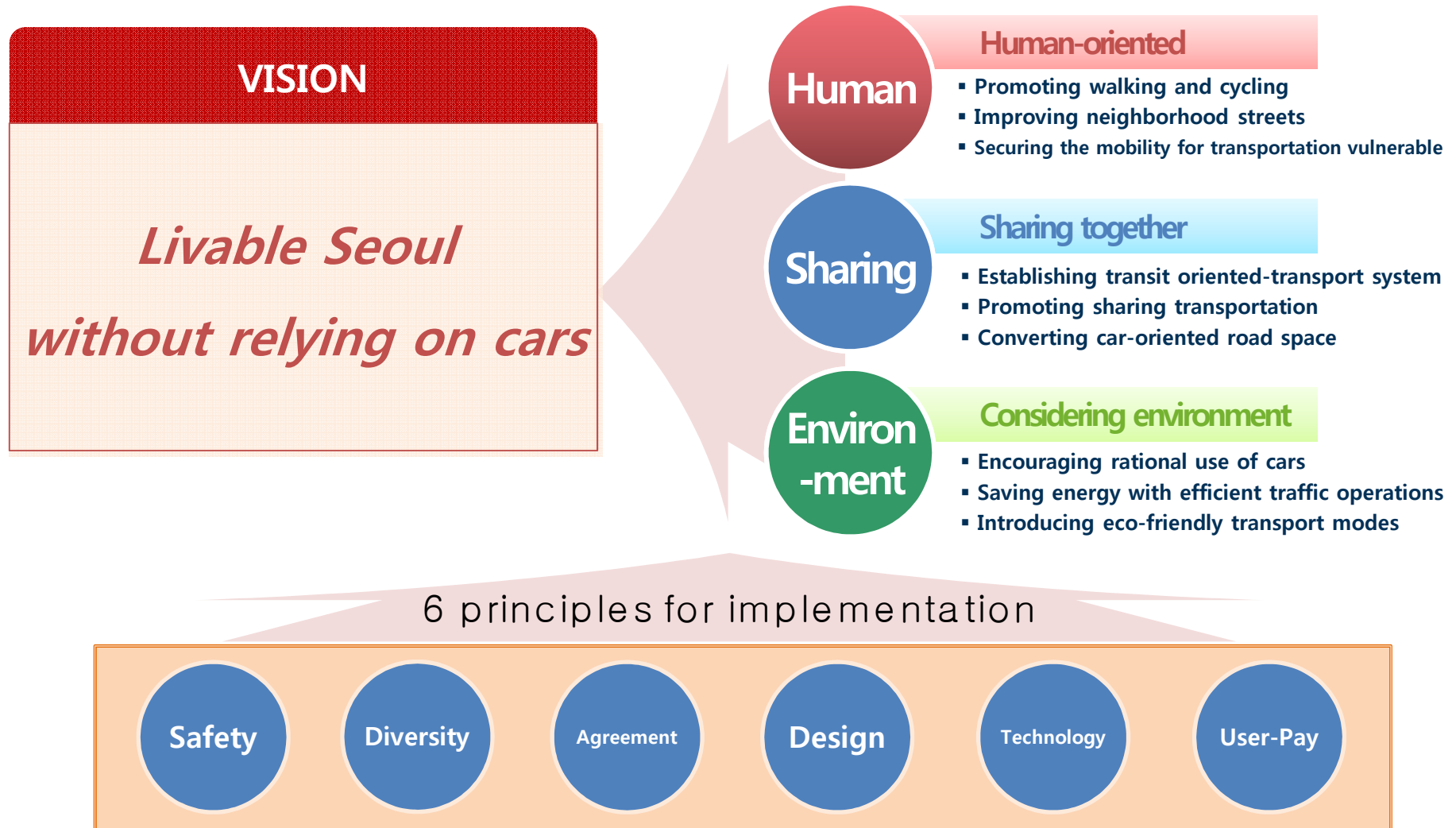
II. Vision

2. Vision

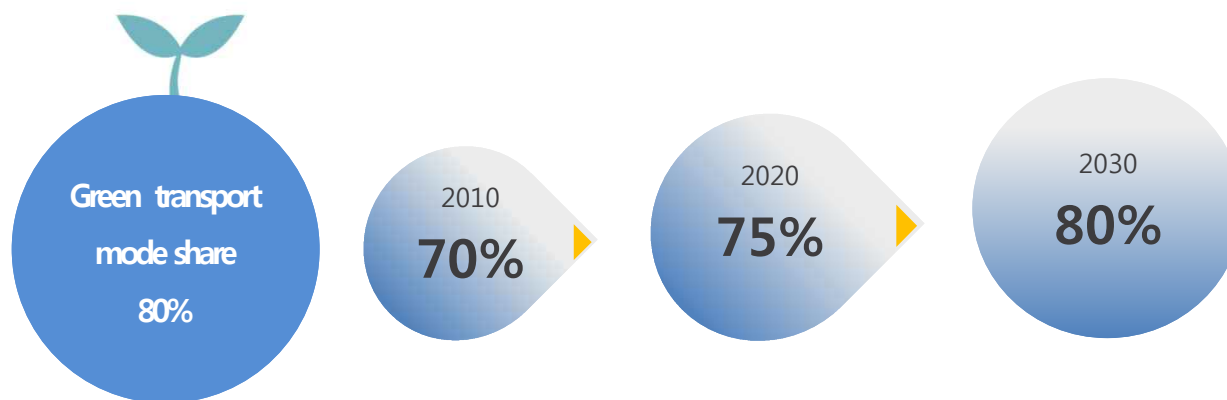
Toward paradigm shift



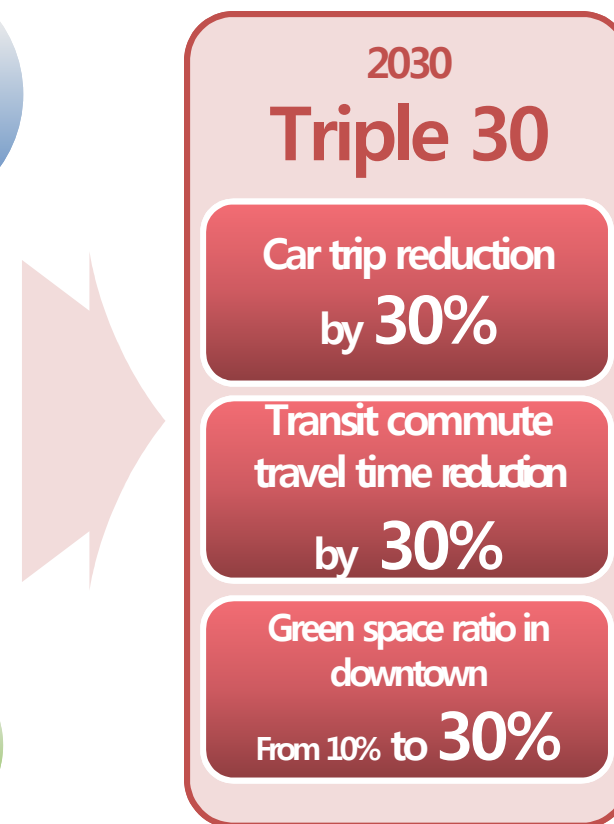
2. Vision



2. Vision



※ Green transport mode: transit, walk, bicycle, zero emission vehicles



III. Implementation

3. Implementation

「Seoul Transport 2030」
11
Promises



Building pedestrian-oriented environment



Encouraging the wide use of bike



Making accident free city



Removing barriers for the transportation vulnerable



Establishing rail-oriented public transit system



Making public transit faster and more convenient



Encouraging shared transport



Reducing unnecessary trips



Introducing environmentally friendly transport modes



Making cars on the road flow smoothly



Improving the citizen's awareness of the better transport culture

Human

Sharing

Environ-
ment

3. Implementation



Human



Sharing



Environment



Doubled
Sidewalks &
Bike roads

At least 80%
decrease in
car accident
deaths

100% Equipped
with barrier-free
facilities

Present 430 deaths/year

Present 75%

Accessible to
subway stations
within 10 min

Bus speed
25km/h
on bus lanes

At least 2
car sharing
spots
per neighborhood

Present 20.1 km/h

Present 0.7/administrative unit

10% car
modal share
in downtown

80% transit
cars with
zero emissions

90% arterial
roads with
no-congestion

Present 19.3%

Present 0.2%

Present 80%

3. Implementation

01 Transit mall

Introducing transit mall on Sinchon-ro in January, 2014
Pedestrian-only road on weekends



<http://www.dtoday.co.kr/news/articleView.html?idxno=105873>



<http://m.bizwatch.co.kr/?mod=mview&uid=4887>

3. Implementation

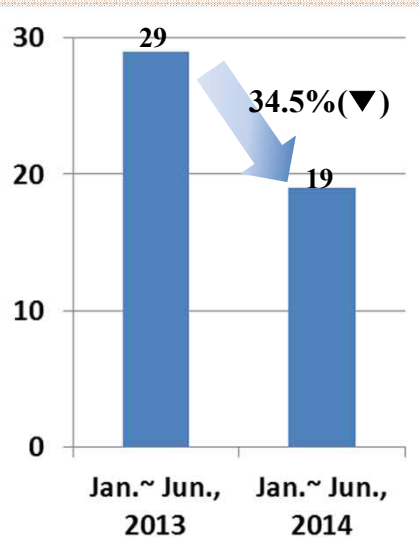
01 Transit mall

Decrease in traffic accidents

Increase in citizen's satisfaction and stores' sales

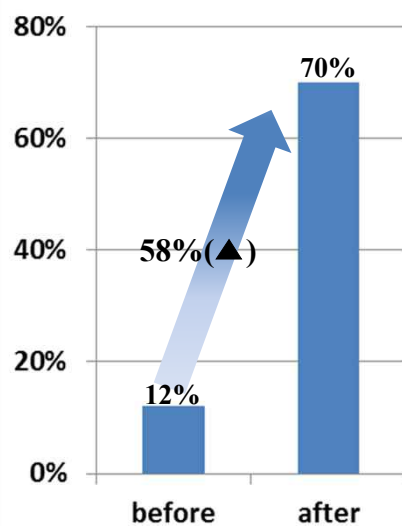
Traffic accidents

Number of traffic accidents
in Sinchon district



Satisfaction degree

Citizen's satisfaction degree
of Sinchon transit mall (N=1,300)



Sales

Stores' sales & number of visitors
in Sinchon district

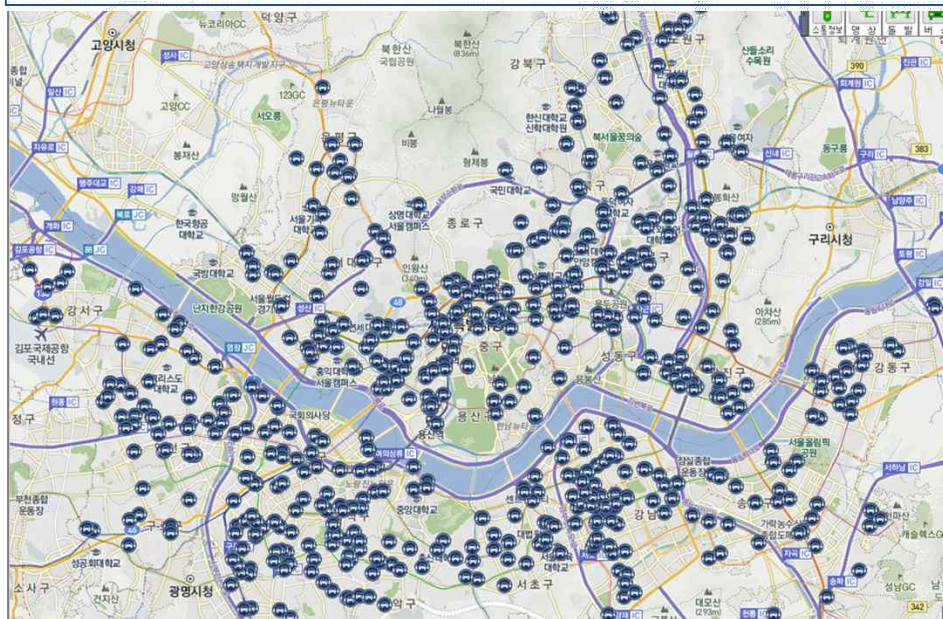


3. Implementation

02 Car sharing

Start to operate in February, 2012 including a fleet of electric vehicles (EVs)

Seoul car sharing spots (676 spots, 1,303 cars)



Easy renting system



Introducing EVs

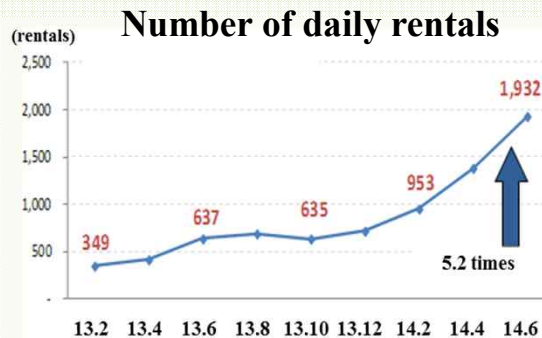
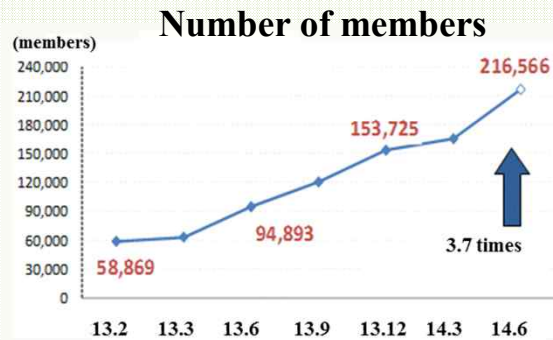


3. Implementation

02 Car sharing

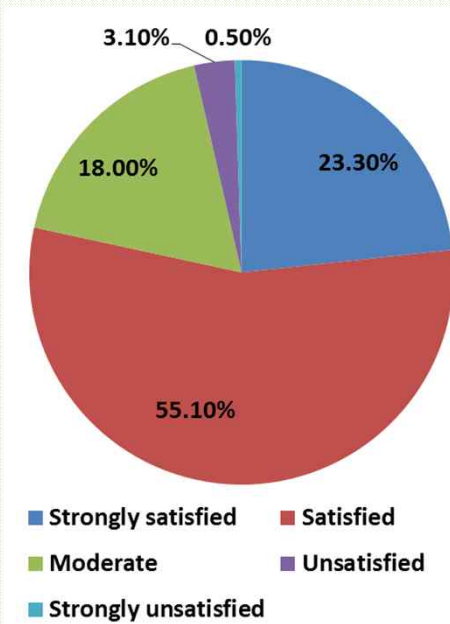
Rapid increase of car sharing members and rentals
High degree of car sharing member's satisfaction

Car sharing members & rentals



Satisfaction degree of car sharing

Number of respondents: 5,950



3. Implementation

03 Removal of overpass

Start to remove overpass in 2002
Enhancing urban scenery, vitality, and traffic conditions

Sinseol (2007)



Gwanghui (2008)



Mullae (2010)



Hwayang (2011)

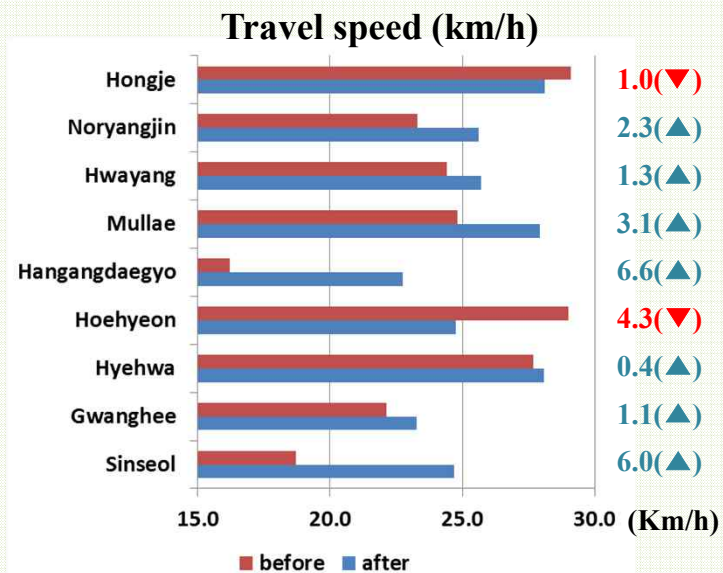


3. Implementation

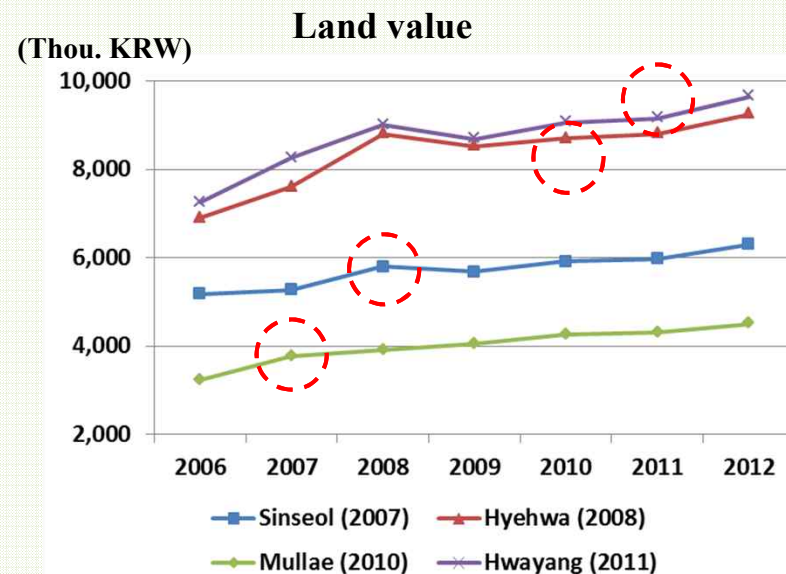
03 Removal of overpass

Increase in travel speed and rise in land value

Travel speed before and after
removal of overpass



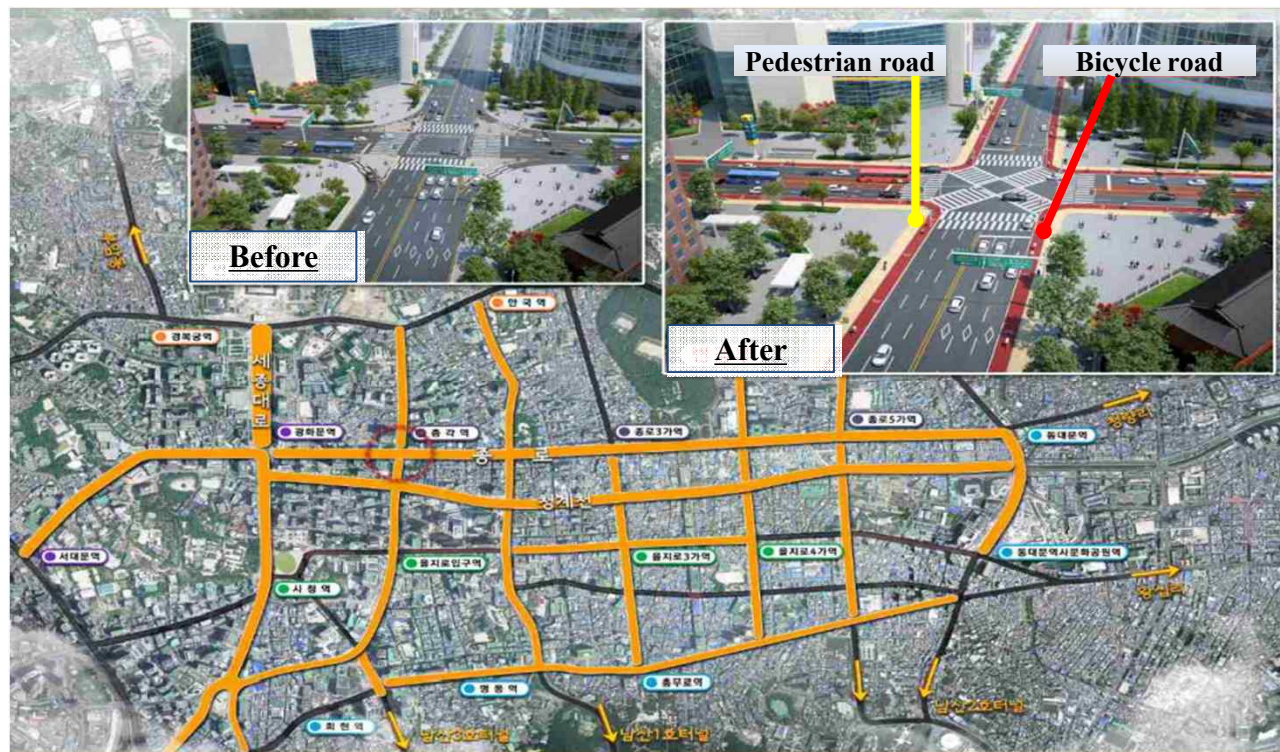
Land value before and after
removal of overpasses



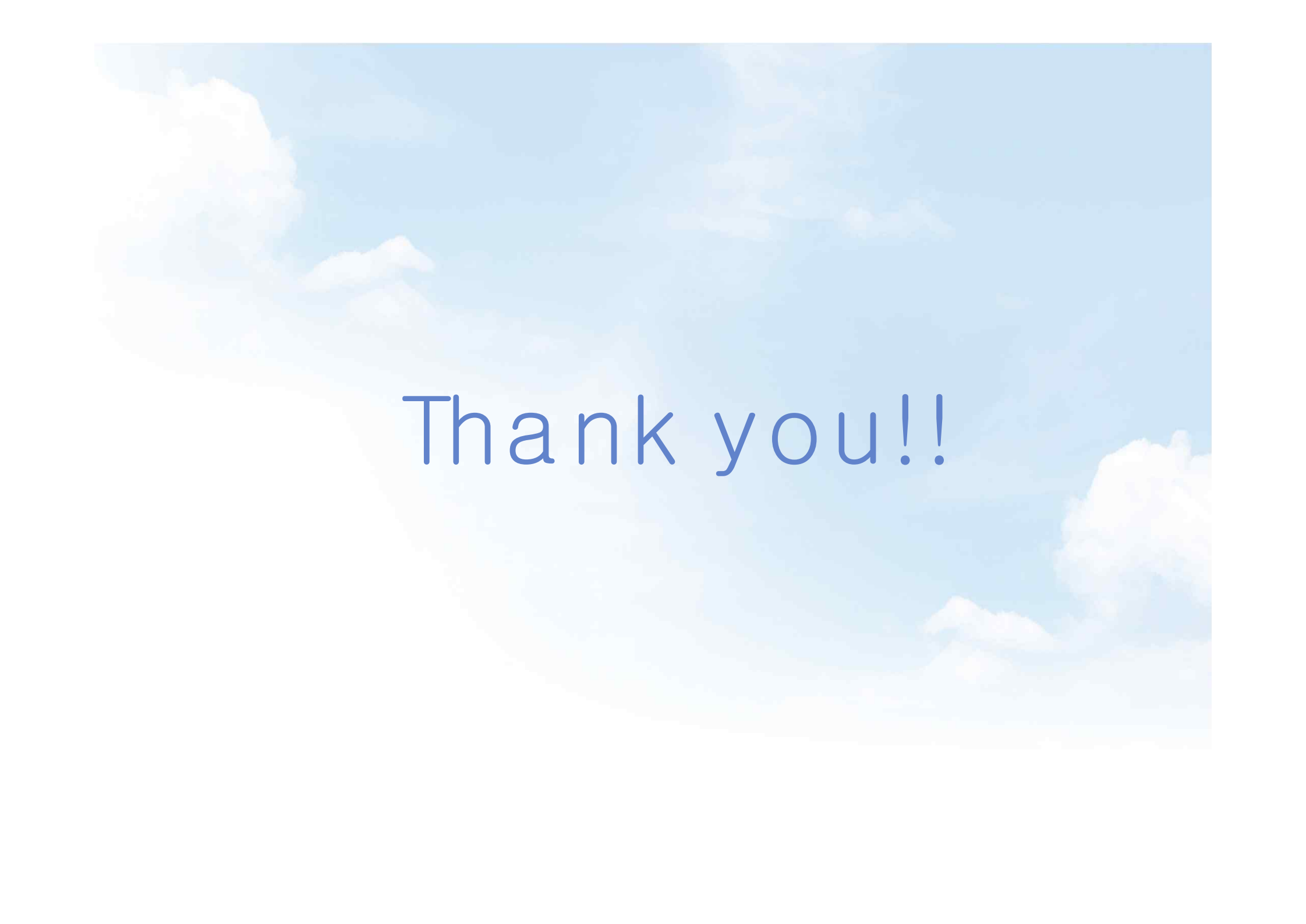
3. Implementation

04 Road diet

Widening sidewalks by eliminating lanes on several downtown roads



Seoul Downtown and road diet target roads (yellow lines)

A background image of a bright blue sky filled with soft, white, fluffy clouds. A faint, multi-colored rainbow is visible, arching across the lower half of the image. The text "Thank you!!" is centered in the middle of the image in a blue, sans-serif font.

Thank you!!