

# Mobility in Seoul

Pedestrian & Bicycle Friendly City

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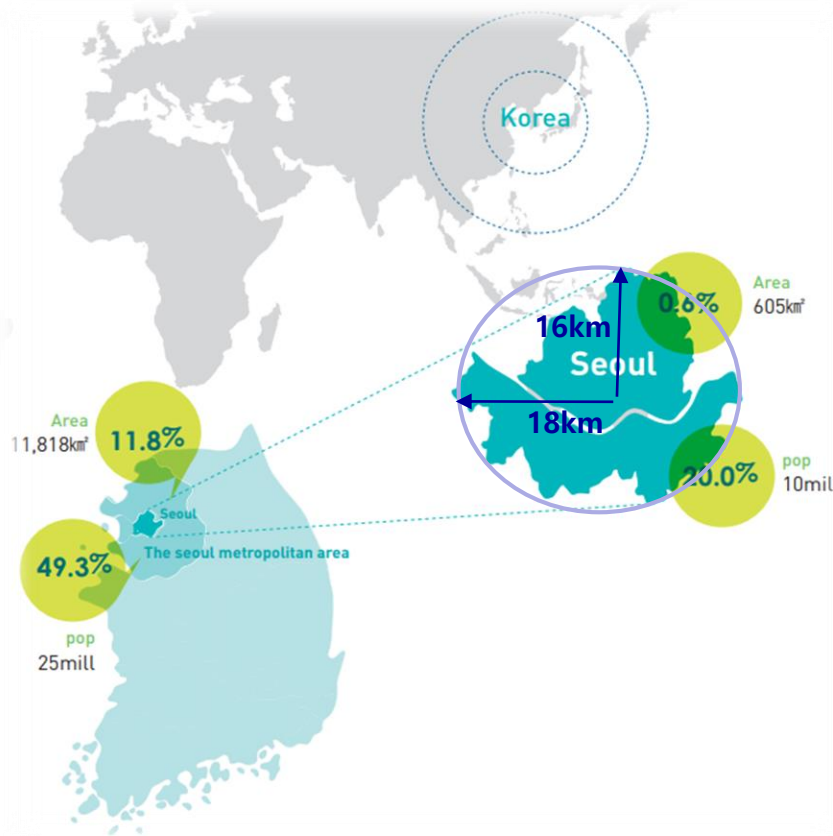
서울연구원  
The Seoul Institute

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# Seoul Transportation Overview



## ❖ Area

- Seoul : 605.2 km<sup>2</sup>
- Metropolitan Area : 11,818 km<sup>2</sup>

## ❖ Population

- Seoul : 10.1 Million
- Metropolitan Area : 25.5 Million

## ❖ Vehicle

- Car : 3.1 Million veh
- Bus : 7,421 veh
- Taxi : 71,968 veh

## Road



- 8 Urban Expressway (189 km)
- 26 Major Arterial (426 km)
- 144 Minor Arterial (602 km)

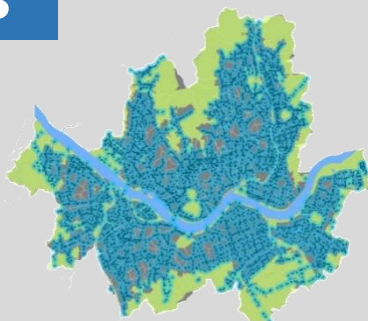
## Subway



- Seoul : 10 Lines (343 km)
- Metropolitan : 23 Lines (1,180 km)
- \* Construction : 9 Lines (222.3km)
- \* Planning : 10 Lines (186.54km)

# Public Transit Friendly City, Seoul

## BUS



**[Bus Station Coverage]**

\* 300m, 6,240 Stations.

**[BRT System]**

\* 12 Axis(121.1 km), 282 Routes

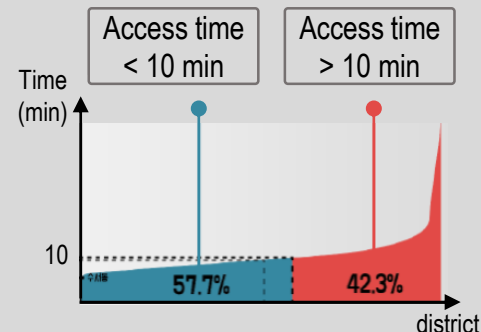
## Transfer System



**[5 Major Transfer Center]**

**\*Free Transfer within 30 min**  
(Bus↔Bus, Bus↔Subway)

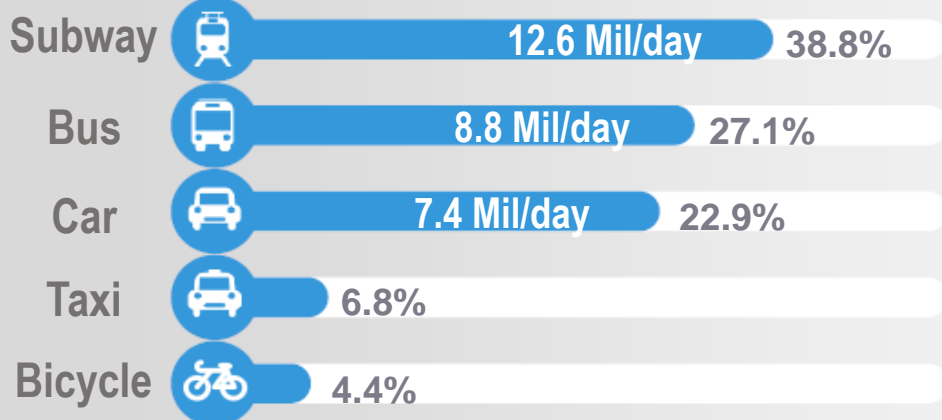
## Subway



**[Walking to Subway]**

\* Average 10.1 min

## Total Trips per day



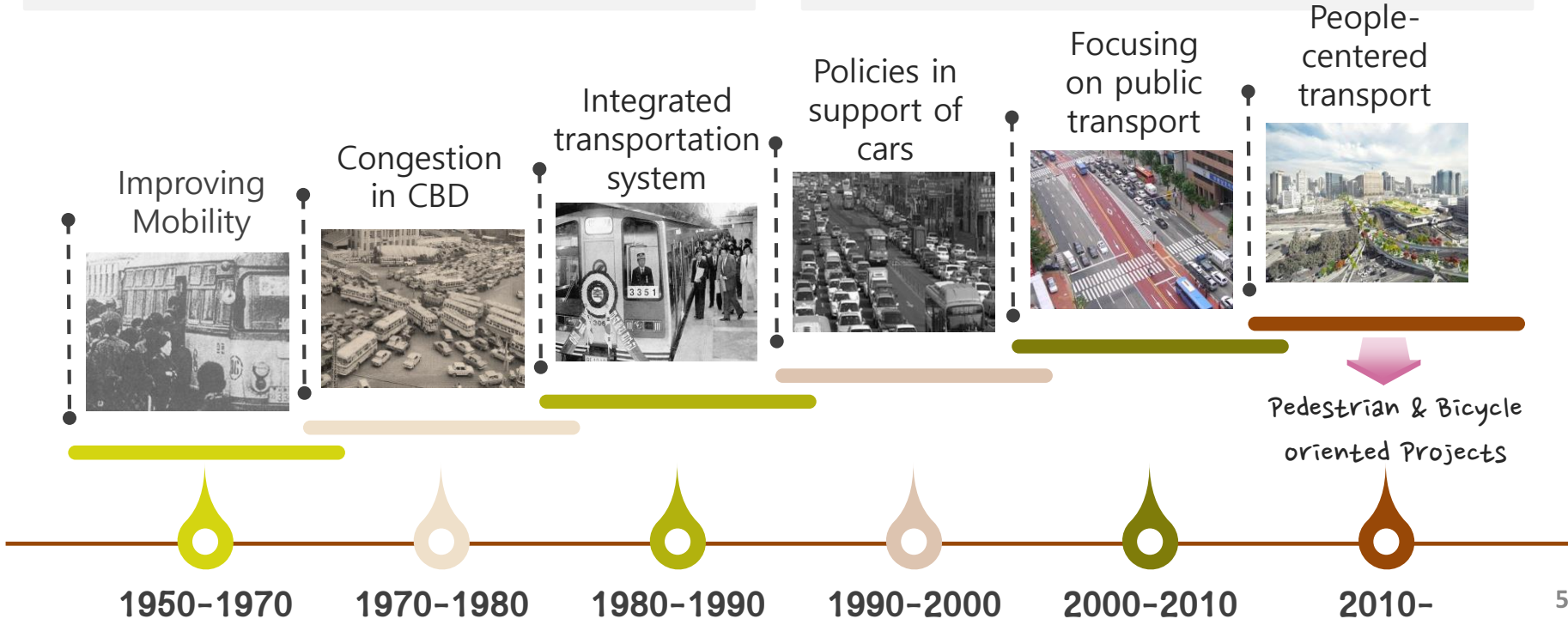
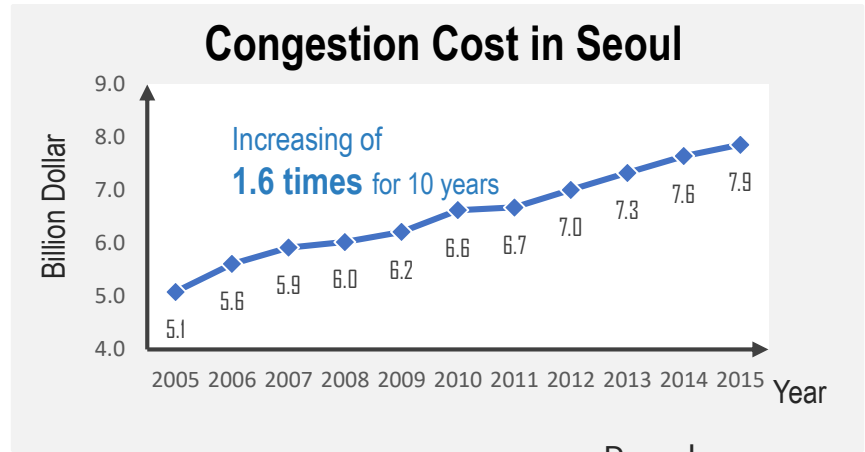
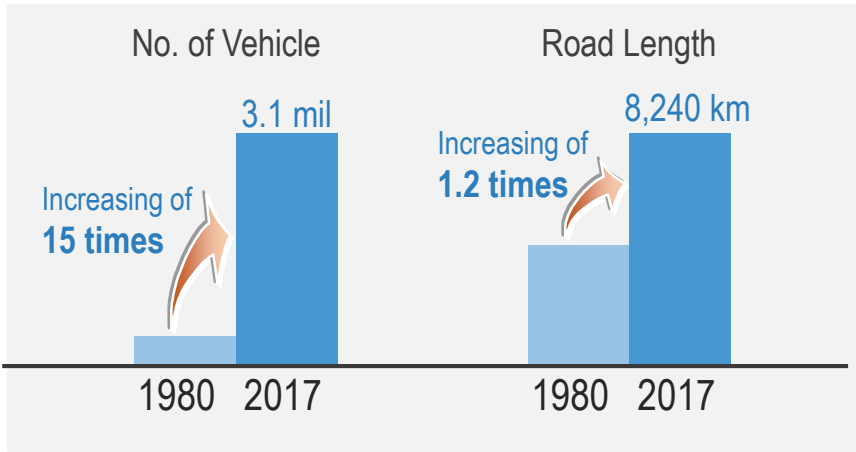
## Transit Share rate

**65.9%**



**21.4 Mil/day**

# Seoul Transportation Policies over Time



# 1) Pedestrian Zone in Myeongdong

## Process <Street Improvement in the Myeongdong Special Tourism District>

### Phase 1 [2006.12-2007.12]

- Improve sidewalk/road
- Install street lighting
- Floor Fountains, etc

### Phase 2 [2007.03-2009.06]

- Improve sidewalk/road
- Install plants on walls
- Street lighting,
- Improve facilities

### Phase 3 [2009.03-2010.04]

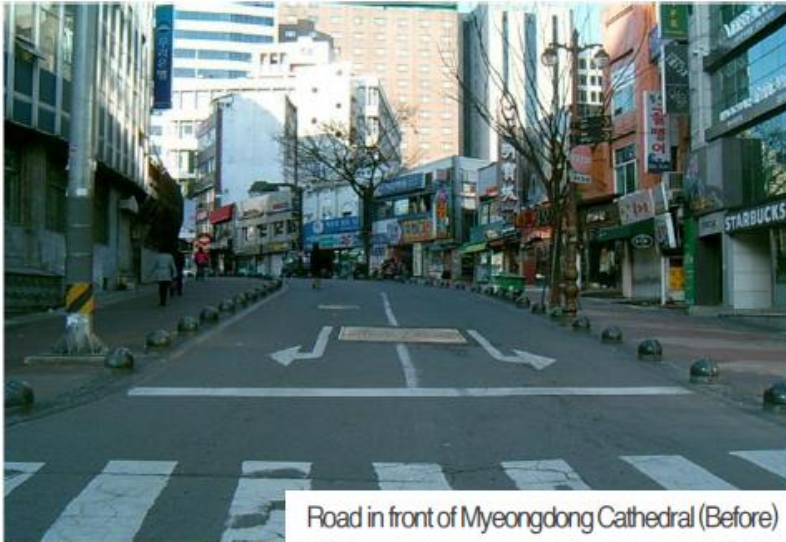
- Pave Sidewalk
- Improve facilities

### Phase 4 [2010.04-2010.08]

- Improve sidewalk/road
- Improve sewers, power cables, and other underground facilities



# 1) Pedestrian Zone in Myeongdong



Road in front of Myeongdong Cathedral (Before)



Road in front of Myeongdong Cathedral (After)



Myeongdong-gil (Before)



Myeongdong-gil (After)

## 2 Pedestrian Oriented Projects

# 1) Pedestrian Zone in Myeongdong



Jungang-gil (Before)



Jungang-gil (After)



Chungmuro-1-ga-gil (Before)



Chungmuro-1-ga-gil (After)



# 1) Pedestrian Zone in Myeongdong

## Outcome

- No curb between sidewalk and road, making it easier for wheelchairs and baby strollers.
- High heels no longer caught in grooves between paving blocks or in manhole covers.
- \* Pedestrian-only zones to be expanded, starting with Myeongdong-gil and Gwancheoldong-gil.



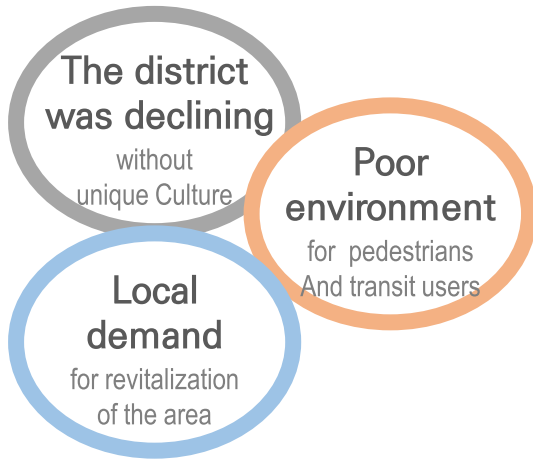
Myeongdong-gil



Gwancheoldong-gil (Street of Youth)

# 2) Shinchon Transit Mall on Yonsei-ro

## Background



## Process

### Existing Traffic

- Created **new intersection**, improved traffic signals
- Additional crosswalk in front of Yonsei University and connected with bus stops on central lane for better pedestrian access

### Use of Space

- Two-lane (each direction) road (10 m) reduced to the minimum (3.5m) to allow **sidewalk to be expanded**
- **No access for vehicles** at the intersection between Yonsei-ro and tourism street; a square and small parks along the way

### Road improvements

- Sidewalk and road on the **same elevation** (trees and landscaping separate the pedestrian walk)
- A pedestrian-only option may be considered in the long term

### Conflict management

- Effective **communication** and dispute resolution between the city and local residents
- A committee **provides opportunity** for interested parties in the local community to participate and share their opinions
- Local residents persuaded by objective research and analytical data
- Mutually acceptable alternatives proposed for many demands

## 2 Pedestrian Oriented Projects

### 2) Shinchon Transit Mall on Yonsei-ro

Before



After



## 2) Shinchon Transit Mall on Yonsei-ro

Before



After



Photo: Press release, the City of Seoul (Jan 1, 2014) 'Seoul's first transit mall opened on Yonsei-ro, Sinchon (6th, MON)'

## 2) Shinchon Transit Mall on Yonsei-ro

### Outcome

- Citizen satisfaction: from 12% to 70%**

Many (80.2%) say that safety has improved over when the narrow road was shared by people and vehicles.

- Based on responses from 1,000 residents and 300 visitors to Yonsei-ro (City of Seoul)

- Visitors increased up to 28%**

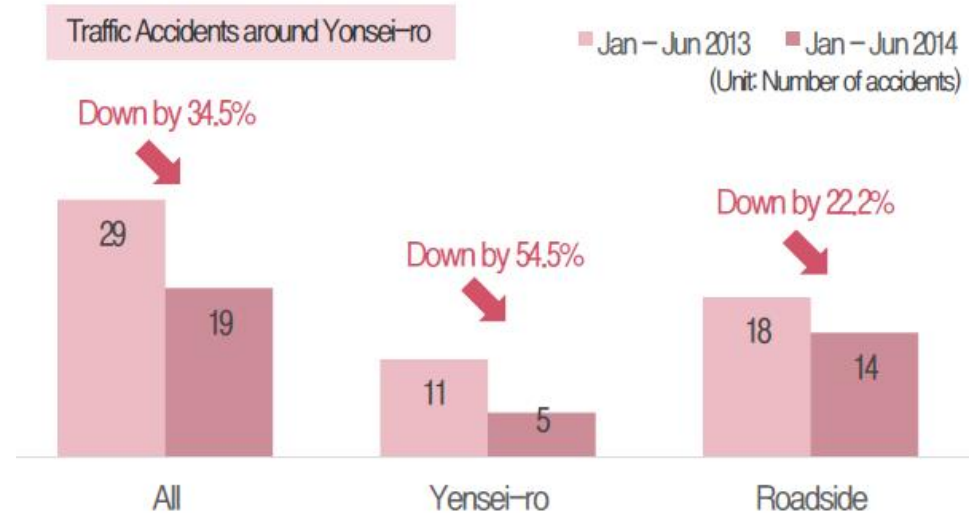
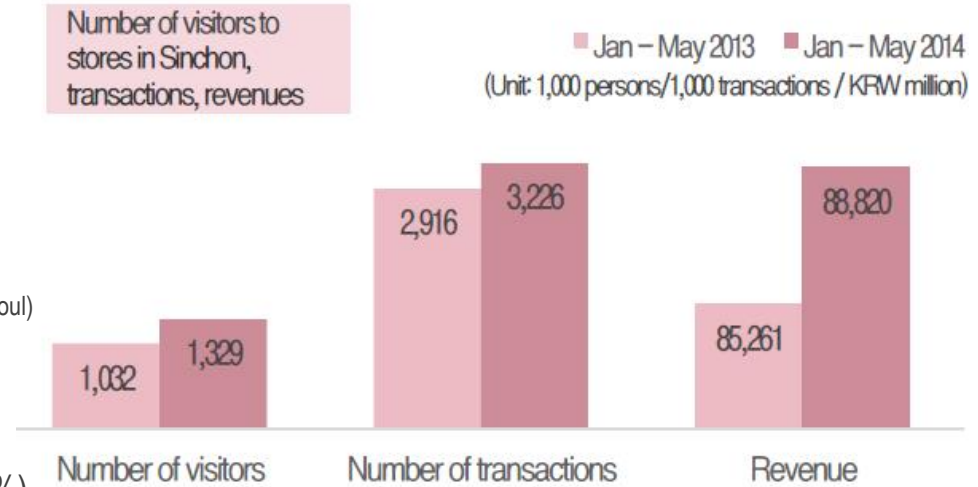
Store revenues up (transactions up 10.6%, revenues up 4.2%)

- Based on transactions made at 1,000 BC credit card member stores in the transit mall

- Traffic accidents down by 34%**

Traffic accidents on roadside down by 22%

Traffic accidents on the main road down by 54.5%



### 3) Gyeongui Line Forest Park

#### Background

- **Opened in 1905, the Gyeongui-Line connected Seoul to Shinuiju (North Korea).**  
After the Korean War, the railroad was used to service Seoul and northwest Gyeonggi Province.
- **In 2005, the Gyeongui-Line went underground.** Discussions were held to make use of the above-ground space.  
During discussions and collection of ideas on use of the above-ground space, the **construction of a park** was suggested.



## 2 Pedestrian Oriented Projects

### 3) Gyeongui Line Forest Park

#### Process

- **Apr 2012 Forest Park Phase 1 completed**
  - Section length: 760 m
  - Walking, bicycle trails
  - 68,000 trees planted for shaded areas to relax

- **After Phase 1, the park was enhanced by input from experts and residents**
  - Walking trails, rest areas and children's playground, etc.
  - Separating bicycle and walking paths due to safety
  - Parking issues resolved
- **Jun 2015 Forest Park Phase 2 completed**
  - 3 Sections, length of 2,046 m
- **May 2016 Forest Park Phase 3 completed**
  - 3 Sections, length of 1,086 m

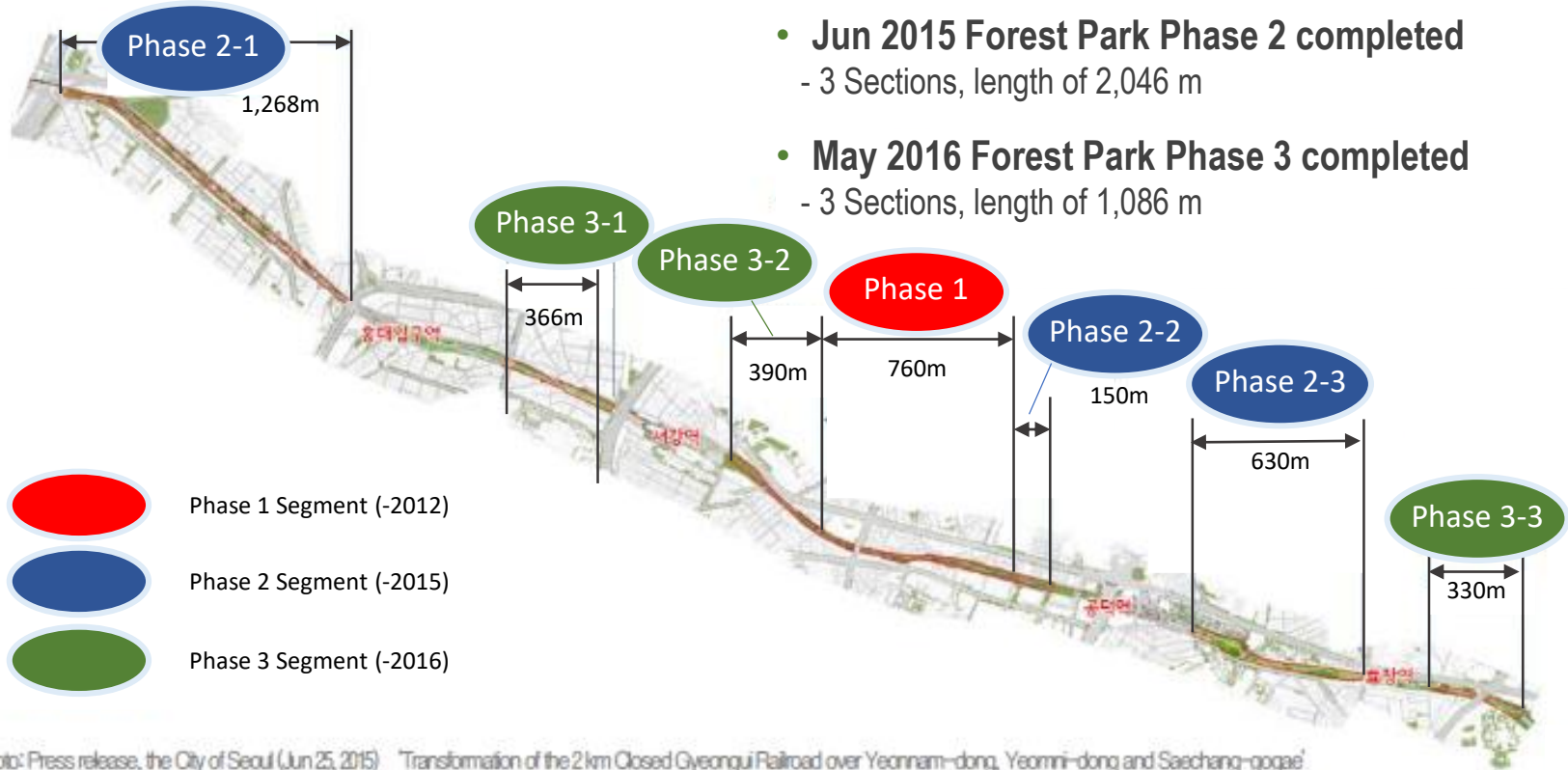


Photo: Press release, the City of Seoul (Jun 25, 2015) 'Transformation of the 2 km Closed Gyeongui Railroad over Yeonnam-dong, Yeomni-dong and Saechang-gogae'

## 2 Pedestrian Oriented Projects

### 3) Gyeongui Line Forest Park

#### Outcome

- Ranked 2<sup>nd</sup> on “Seoul’s Top 10 News in 2015” as selected by citizens
- The Yeonnam-dong segment is referred to as Yeontral Park(‘Yeon’nam-dong + Cen’tral’Park in New York), making it one of the hottest attractions in the Hongik University areas
- The greenway connects the green areas of the city \* Han River - World Cup Park - Hyochang Park - Yongsan Park

People walking in the Yeonnam-dong segment of Gyeongui Line Forest Park



View of the Yeonnam-dong segment of Gyeongui Line Forest Park





## 4) Seoul Station 7017 Project

### Background

- **Seoul Station Overpass: a 2-lane elevated way to the north of Seoul Station**

Daily average of 46,000 vehicles: 60% going through the area without stopping.

It is a symbolic structure, the face of Seoul that people from other areas see first when they arrive at Seoul Station.

- **Deteriorating, hazardous – Demolition proposed**

2006, 2012 Safety Class “D”

2014 (Jan) Structural safety; demolition reviewed ahead of original schedule

- **Decision to restore rather than demolish, to revive its historical value**

2014 (Apr) Reviewed options to utilize the Seoul Station overpass

2014 (May) Selected as one of the mayor’s campaign promises (the 6th popular administration)

- **Start of ‘Seoul Station 7017 Project’ (Jan 2015)**

**7017** refers to.....

- Originally built in the **1970s** and reborn in **2017**
- From an old **1970s** road for cars to **17** trails for people
- An old **1970s** overpass built **17m** high



## 4) Seoul Station 7017 Project

### Process

- The Seoul Station 7017 Project **International Ideas Competition** announced winners (May 2015):  
→ **‘The Seoul Arboretum’** by Winy Maas (The Netherlands)

(Concept) The overpass is conceptualized as large and native trees planted in alphabetical order

Lighting is conceptualized as branches. Seoul’s **17 walking trails** are organically connected by the garden.

► *The overpass is turned into a sky garden.*

(Judge’s Comment) “The vision and strategy of allowing nature to breathe life into the concrete structure is innovative and futuristic.”



## 2 Pedestrian Oriented Projects

# 4) Seoul Station 7017 Project

### Outcome

- Visitors increased up to **48.6%**

Weekday +28.5%, Weekend+ 48.6%

- **Economic activity increased**

Credit card usage + 42%, Number of business +140%

- **Citizen Satisfaction 69%**

Pedestrian facilities, Culture space get high score

Need to improve facilities for transportation vulnerable.



## 2 Pedestrian Oriented Projects

# 5) Small Projects

### Pedestrian Environment Improvement Projects

20 projects (2013–2017)

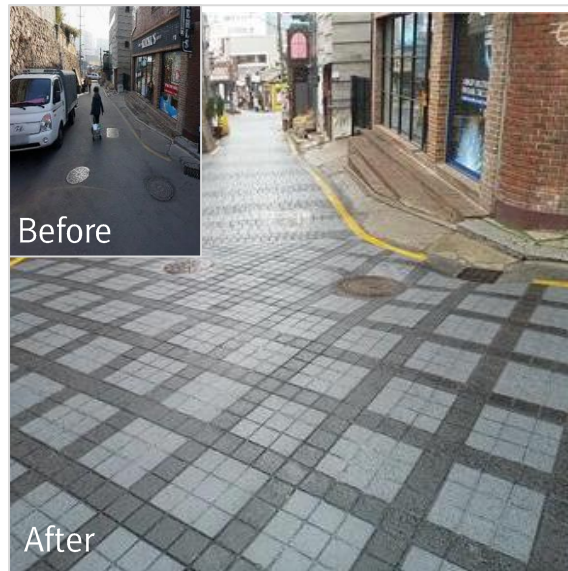
- Sidewalk Widening
- Crosswalk Widening
- Auto-restricted Zone
- Pavement Improvement



### Pedestrian First Projects

63 projects (2013–2017)

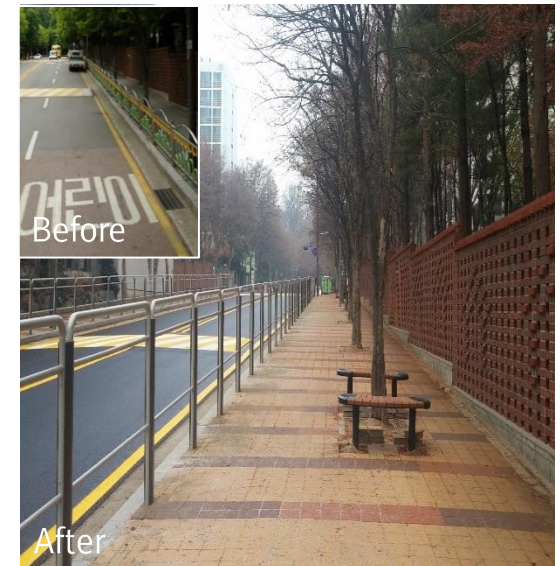
- Pavement Improvement
- Repair Road Facilities
- Improvement for high-accident Area



### Road Diet Projects

34 projects (2016–2017)

- Lane Reduction
- Sidewalk Widening
- Rest Area Installation



## 2 Pedestrian Oriented Projects

# 5) Small Projects

### Mobility Right for Everyone

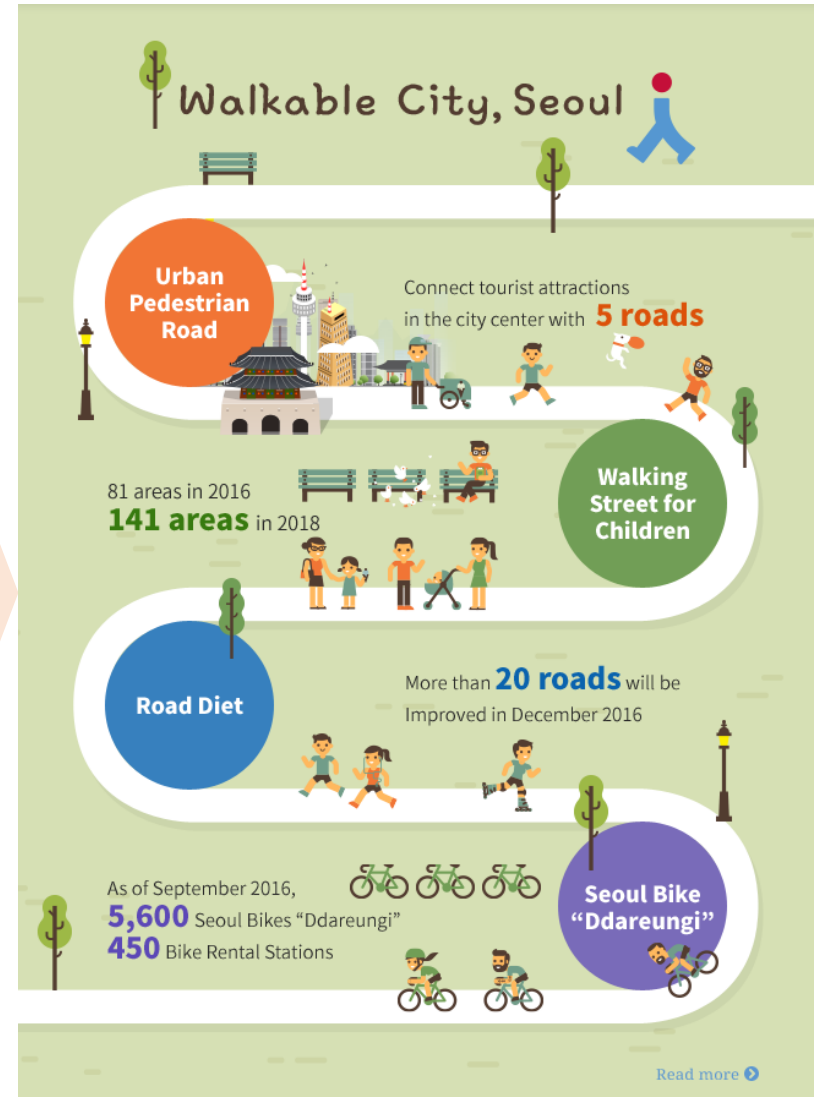
Before



After



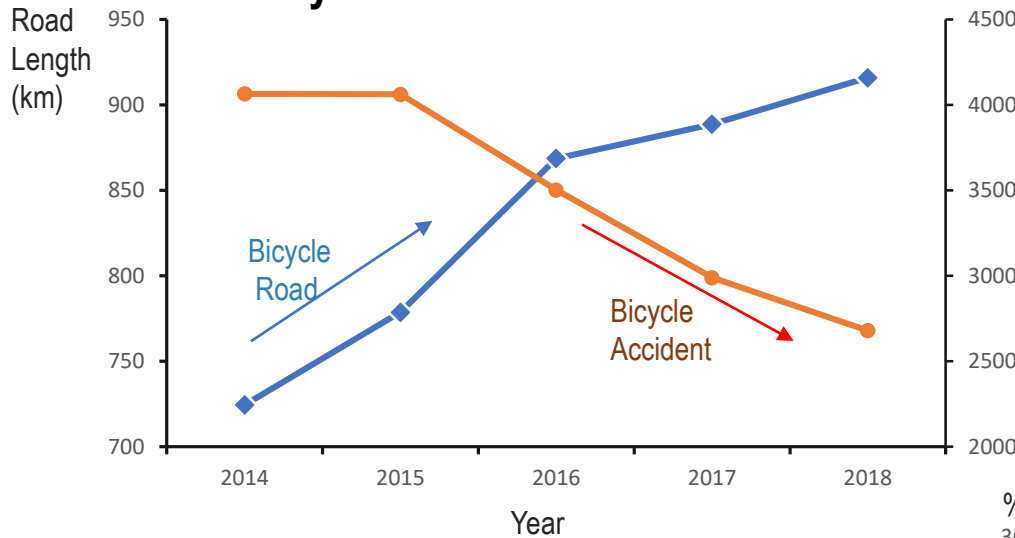
'Yellow Carpet'  
Projects near  
Elementary  
School



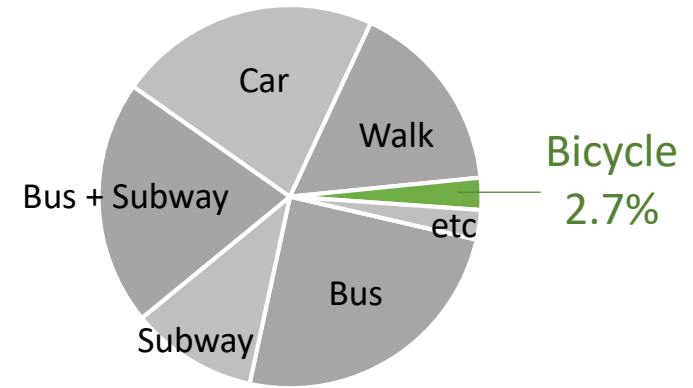
# 3 Bicycle Oriented Policy

## Bicycle Infrastructure, Safety

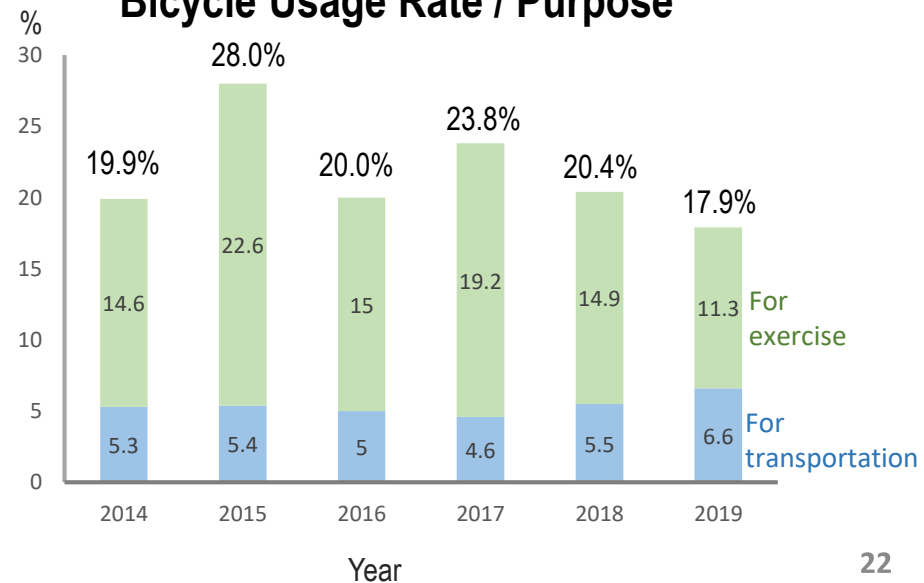
### Bicycle Road / Accident in Seoul



### Mode Share for Commute

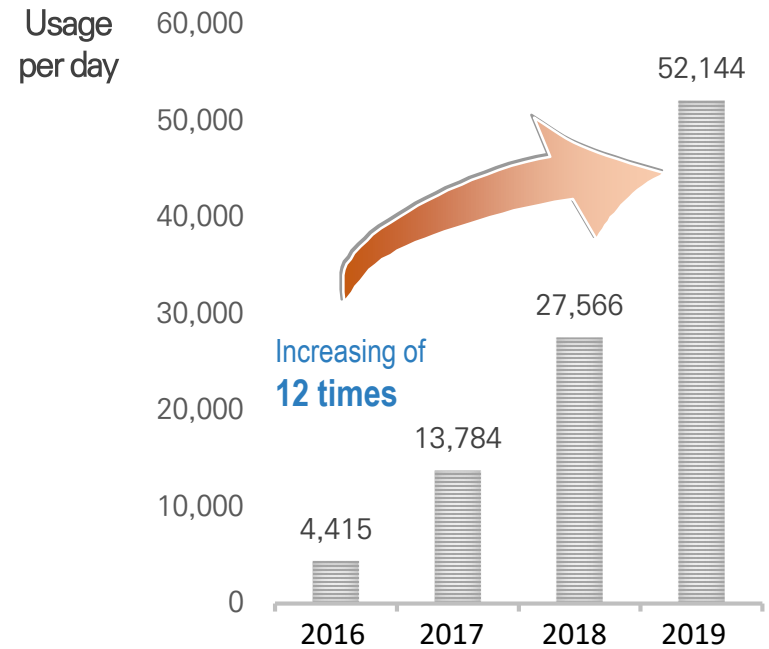
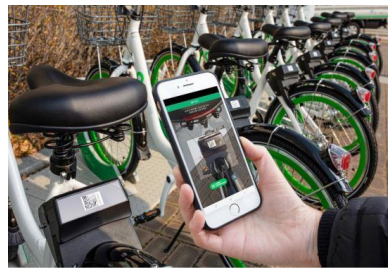
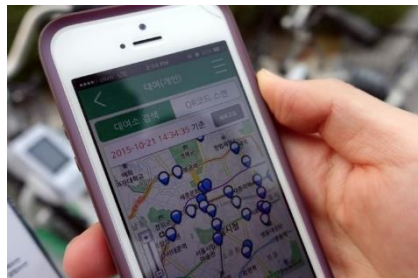
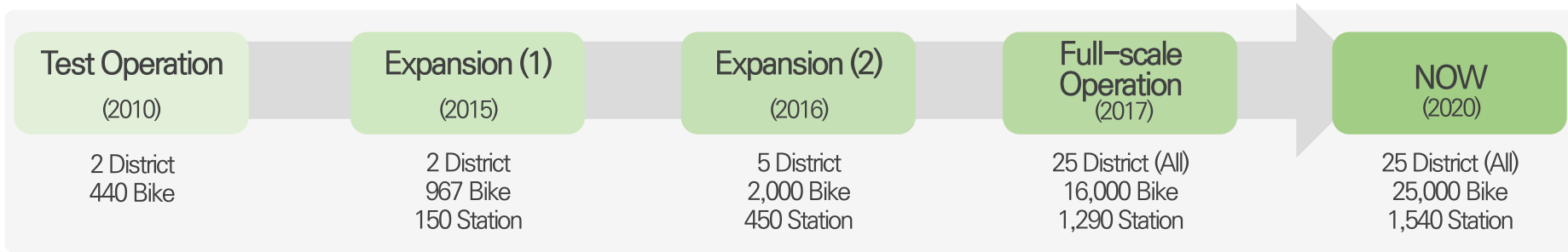


### Bicycle Usage Rate / Purpose



- Bicycle Infrastructure increases
- Bicycle related accidents decrease
- The mode share of bicycle is less than 3%
  - People usually ride a bicycle for leisure, not for transportation.

# 3 Bicycle Oriented Policy Public Bike System



1<sup>st</sup> Place of “Most Beloved Policies of Seoul” in 2017, 2018 and 2019

# Vision and Plan

## Construction of **Bicycle Highways (CRT)** connecting Seoul in all directions

### **C**ycle **R**apid **T**ransportation

Breaking away from creating bike lanes that are part of roadways, we will build standing bike lanes tailored to each space, including the top of BRT. What enables riders to pass through the arteries of Seoul on bicycles is

**CRT, a bike-only highway of revolutionary concept and form.**



## **Bicycle Highways (CRT)**

Obstacle-free, safe, quick, and comfortable



CRT - type 1  
**Sidewalk-type**



CRT - type 2  
**Canopy-type CRT**



CRT - type 3  
**Tube-type CRT**

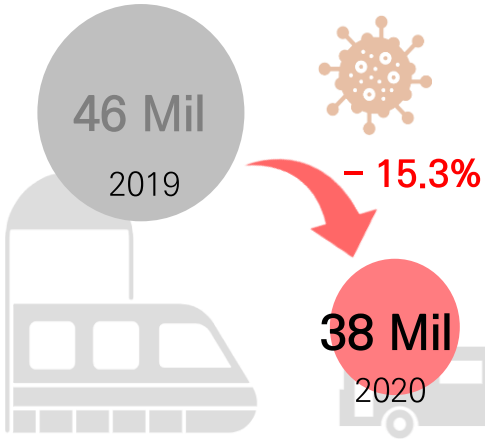


CRT - type 4  
**Green carpet-type CRT**



# Smart Mobility to Resolve Upcoming Problems

〈Subway Passenger in Jan 28 -Feb 02〉

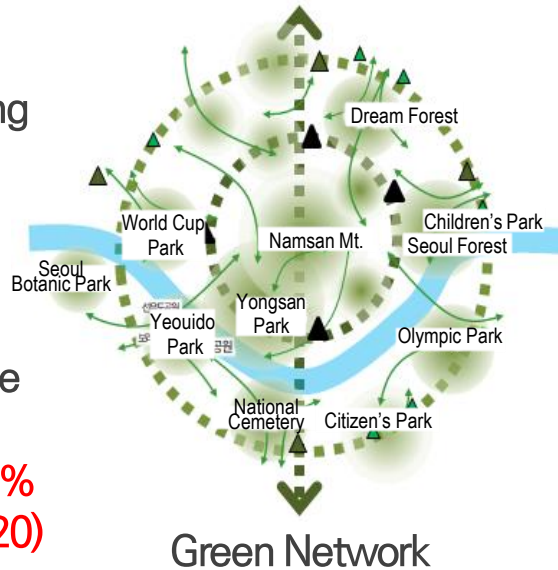


Walking



Bicycle

(+ 67%  
in 2020)



Smart Mobility  
(Robot Delivery)



Thank you!

