

# Creation of a Bicycle - Friendly Changwon



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# Introduction to Changwon

## Overview

- Population : 504,000
- Area : 296km<sup>2</sup>
- Budget :  
KRW 977.3 billion  
(USD 773.8 million)



## Changwon Industrial Complex

- Scale : 26.9km<sup>2</sup>
- Number of businesses : 2,110
- Number of employees : 83,000
- Production volume : KRW 47 trillion(USD 37 billion)
- Export volume : USD 22 billion  
Export volume : \$2.9 billion as of April 2009,  
Representing a 52% increase on the same month  
in the previous year.

## Businesses

### Major companies



### Multinational companies



GM DAEWOO

VOLVO

OTIS

PHILIPS



## Why bicycles in Changwon?

### Reasons

- Traffic congestion
- Lack of parking space in industrial complex areas
- Atmospheric pollution (68% Caused by vehicles)
- Road sloping rate under 3%
- City planning (Establishment of bicycle lanes)



# III Vision and Strategies

1. Objective for 2020 : 20% of all transportation carried out by bicycle by 2020  
 ↳ 7%('08) → 10%('10) → 15%('15) → 20%('20)

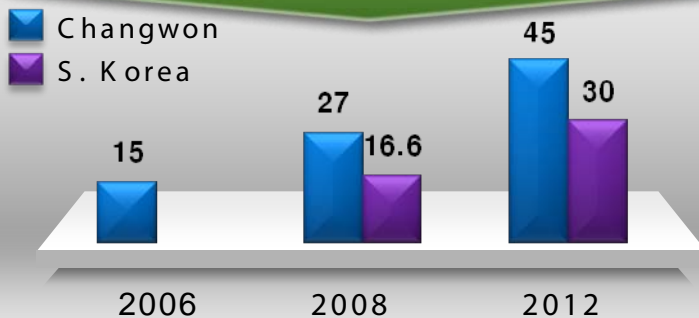
### Bicycle Lane Maintenance (km)



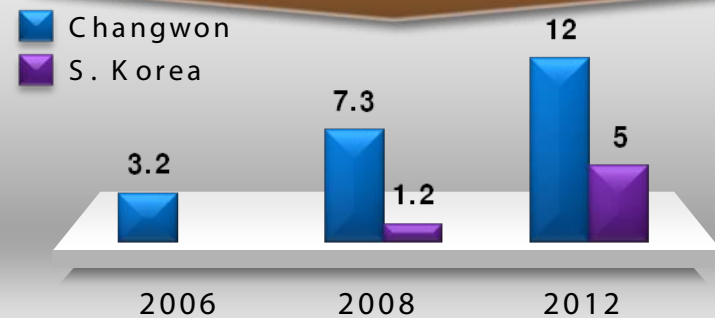
### Number of Public Bicycles



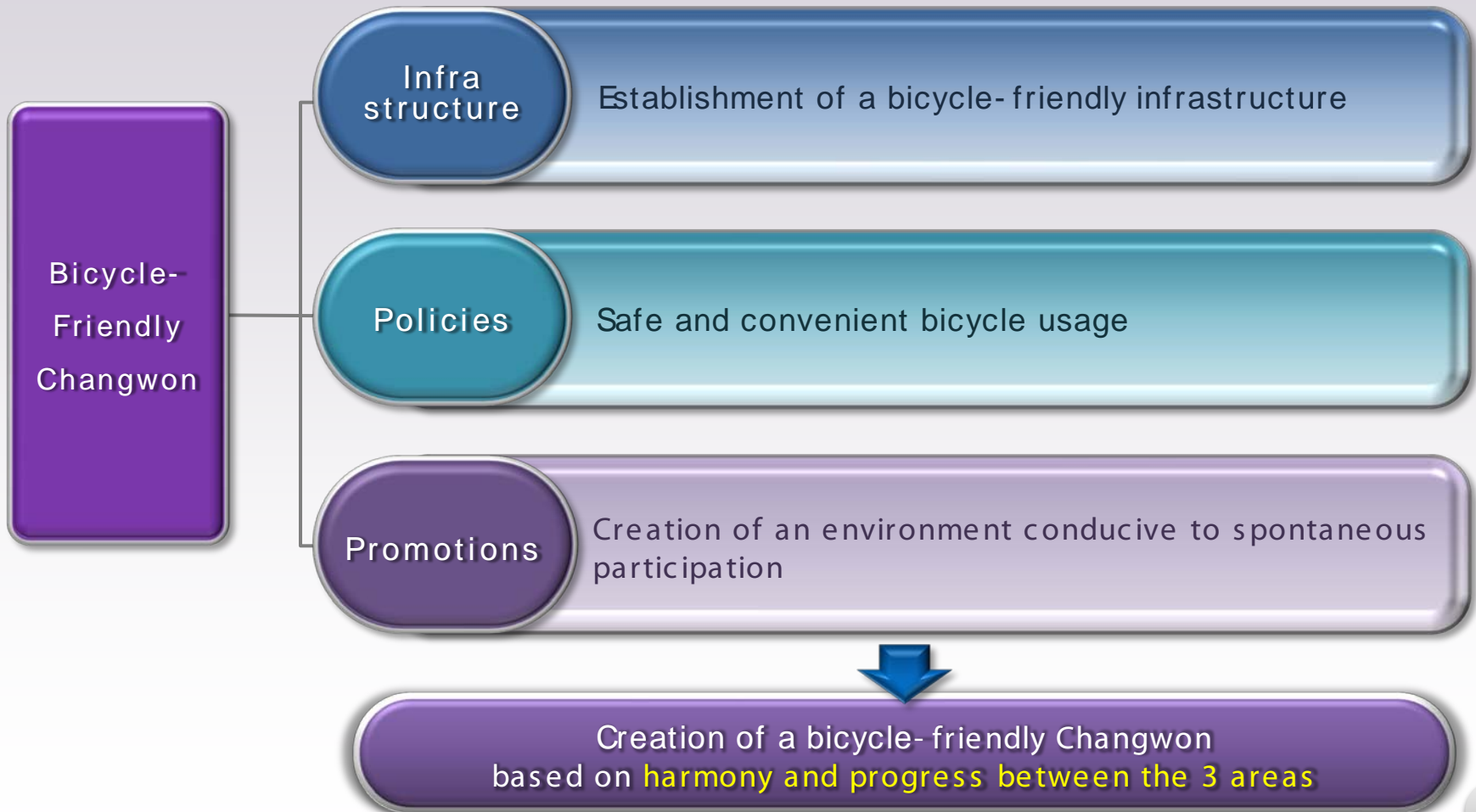
### Bicycle Ownership (%)



### Transportation by Bicycle (%)



## 2. Strategies



## 1. Infrastructure

### Connection of bicycle lanes



Bicycle / Vehicle lane  
7 lanes / 22km



Bicycle / Pedestrian lane  
47 lanes / 98km

Bicycle-only lanes : 15lanes / 96km  
(the most extensive network in S. Korea)



Bicycle- only lane

# IV Execution

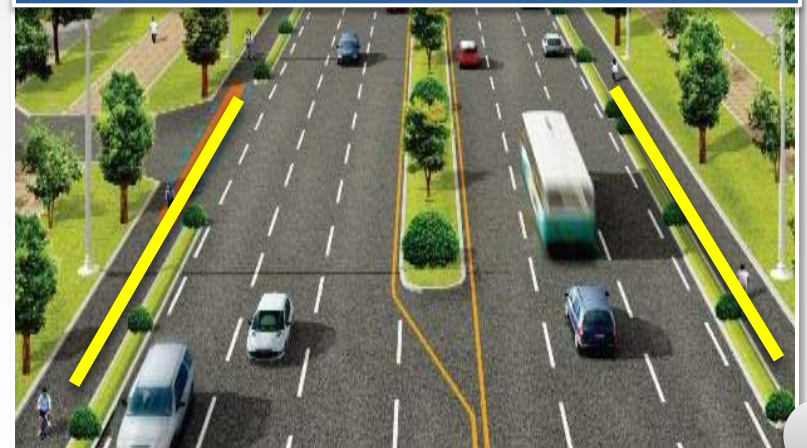
## Bicycle Lane Installation



Daebangno **before** bicycle lane installation



Daebangno **after** bicycle lane installation (4 → 3 lanes, 3.5 → 3.25m)



## NUBIJA : Public Bicycle Project



Nearby Useful Bike, Interesting Joyful Attraction!

### NUBIJA Project Outline

- Execution : 2008 - 2012 (5 years)
- Scale : 300 terminals, 5,000 bicycles
- \* The world's first GPS - equipped automated bicycle rental system

Current NUBIJA Project status : 101 terminals, 1,500 bicycles

#### Effect

- Creation of employment opportunities and revitalization of the bicycle - related industry
- Contribution to 'Low- Carbon Green Growth' schemes (Improvement of traffic, Environmental and energy problems)

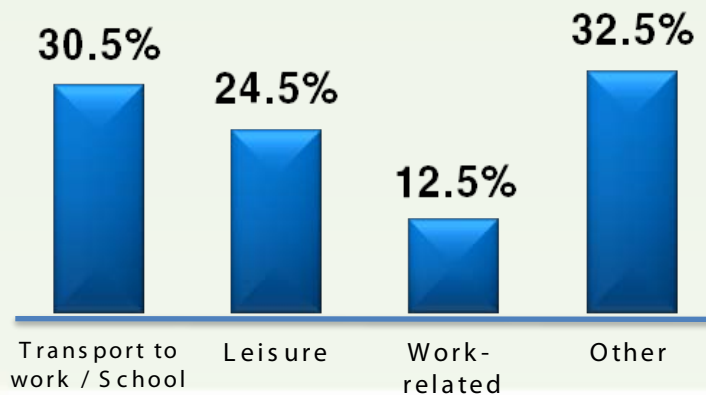
# IV Execution

Han seo hospital

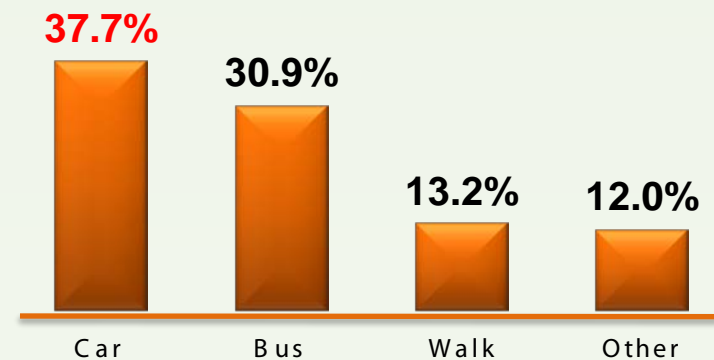


## Survey of Level of Satisfaction Felt by NUBIJA users (over 68% satisfied)

### Purpose of Usage



### Transportation Before Usage



## NUBIJA Overview (7 Months after execution)

- Members : 13,000
- Frequency of usage : 140,000  
(Average of 3,700 times per day as of June 2009)



## Establishment / Operation of a Bicycle Culture Center

- Location : Changwon Cycle Racing Corporation (7,300m<sup>2</sup>)
- Facilities
  - Bicycle promotions center
  - Lecture theater
  - Bicycle training area : 1km
  - Service station



The first integrated bicycle center in S. Korea



## 2. Policies

「**Bicycle Traffic Bylaw**」 (Feb 2007)  
: **Foundation for bicycle policies**

Establishment of the first Bicycle Policies Department in  
S. Korea (May 2008)

- 12 Personnel in 3 parts (Policies, Facilities, Culture)

Bicycle insurance for S. Koreans (Sep 22nd 2008)  
: **First time in S. Korea**

- Bicycle-related victims and offenders : Maximum compensation of \ 29 million (For all S. Koreans)
- Sense of safety instilled in bicycle users, bicycle usage promoted

## Continuous Improvement of the Relevant Laws and Regulations

- Traffic priority adjustment
- Bicycle protection system consolidation
- Compulsory bicycle insurance development and 8 others



Traffic policies that prioritize bicycle users (National policies)

## 3. Promotions

### Bicycle Training

- Bicycle Culture Center
- Free bicycle-riding classes for housewives
- Bicycle-riding classes for different age groups
- Local bicycle-riding classes



## Civil Bicycle Campaign - Public participation encouraged

### Development of bicycle-related organizations

- 67 Bicycle-related organizations, 1,502 Businesses
- Transport to work by bicycle promoted, Pamphlets distributed
- Bicycle campaign converted from government-led to civilian-led

- Allowance for employees using bicycles for transport to work : KRW 30,000 (\$24) per month
- Development of and support for Bicycle Promotion Centers : 15 centers



## National Bicycle Festival: Finale in Changwon

- **Date** : 3rd May 2009
- **Location** : Changwon region including Changwon Square
- **Attendants** : Changwon residents, Korean bicycle enthusiasts, President of Korea, Ministers

### Effect

- Increased public interest in the bicycle as an environmentally- friendly mode of transportation
- Environmentally- friendly image of the city, activation of bicycle- related industries



Bicycle Club Parade



## Formation of an International Union of Public Bicycle Cities





# Thank You!



CHANGWON