

Save the **environment**

지구를 아끼는 보다 깨끗한 기술
환경수도 창원이 먼저 시작합니다.



The Current Situation of



in Changwo

창원시
CHANGWON

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I Introduction to the Changwon

New Changwong was founded in July 2010

- Changwon + Masan + Jinhae city
- Population : 1,100,000
- Area : 743.8km²
- Budget : 2,262billion KRW (23billion USD)



Businesses

Major companies

SAMSUNG



stx

DOOSAN

Multinational companies



GM DAEWOO

VOLVO

OTIS

PHILIPS

II Background

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)



II Background

○ Why NUBIJA in changwon?

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- Non-use of bicycles as transportation means
- Difficulties involved in the use of personal bicycles
- Difficulties in the use of free-loan bicycles
- Successful operation of foreign public bicycle systems



NU
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JA

- Introduction of an unmanned public bicycle-loaning system to which a ubiquitous technology that allows one to use a bicycle anytime(24hr) and anywhere freely and conveniently, without having to own a private bicycle is applied (a drastic departure from the existing paradigm of bicycle use)



○ What is NUBIJA?



가깝고 유용한 자전거, 재밌고 즐거운 유혹 !
Nearby **U**seful **B**ike, **I**nteresting **J**oyful **A**ttraction !

NUBIJA Project Plan

- Duration : 2008 ~ 2012(5years)
- Objectives : terminals 300, NUBIJA 6,000
 - * **S.KOREA' s the first & the best Public Bicycle System**

Operation : terminal 230, NUBIJA 4,500 (2010.10)

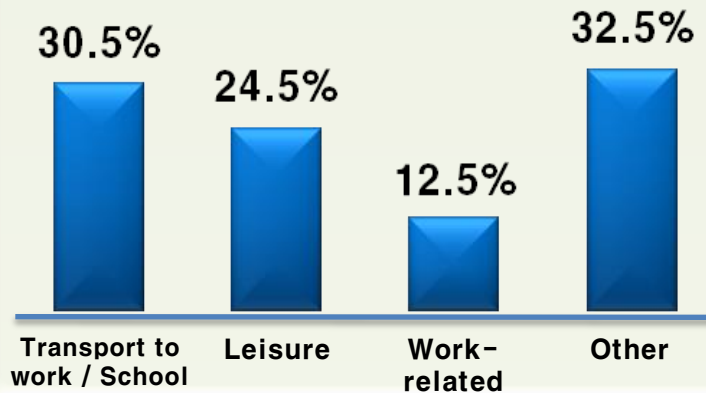
- Operating Center : Changwon Cycle Racing Corporation

NUBIJA VCR

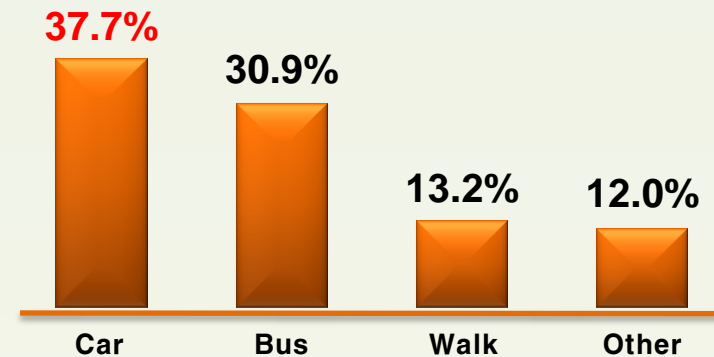
II Introduction to the Nubija and its operation

Survey of Level of Satisfaction Felt by 「NUBIJA」 users (over 86.3% satisfied)

Purpose of Usage



Transportation Before Usage



「NUBIJA」 Overview (2008.10~2011.09)

- Members : 110,000
- Frequency of usage : 6,639,417
(Average of 20,000 times per day as of Sep 2011)



1 Effects of the Environmental improvement

Category	Total	2008	2009	2010	2011.1~9
Frequency (Daily average)	6,639,417 (6,182)	13,806 (194)	1,358,190 (3,721)	2,184,904 (5,986)	3,082,517 (11,291)
Average duration of each use(min)	30	42	34	30	20
Distance(km)	36,751,610	144,963	11,459,728	16,113,667	15,498,210
Saved energy (KRW1M)	7,778	26	2,062	2,900	2,790
CO ₂ reduced(ton)	9,075.5	30.4	2,406.5	3,383.9	3,254.6

- ※ Distance : average speed of each NUBIJA 15km/h
- ※ Energy saved : KRW 1,800 per liter (10km/ℓ)
- ※ CO₂ reduce : 210g/km of the average CO₂ emission per car

➔ Energy saved : 7,778KRW1M, CO₂ reduce : 9,075.5ton



2

Other Effects

Promoting the local economy by creating jobs due to the Expansion of the bicycle-related industries

Establishing the foundation of a low energy consumption transportation culture

New short-distance transportation means at midnight

Promoting the bicycling movement among mid-age women (those in their 40s and 50s) with NUBIJA

Realization of Active Living via NUBIJA

IV Results of the introduction of Nubija



Outline

- **When : 2011.10.21(Fri)~10.24(Mon) <4days>**
- **Where : CECO, Pullman Hotel, Changwon Plaza**
- **Number of Participants : 50,000**
- **Organizer : Changwon city, ICLEI**

Event Size

- **Participants – 71 cities from 28 countries**
 - **Organizations – 15 organization UITP, UN Habitat, GIZ (Deutsche Gesellschaft fur Internationale Zusammenarbeit), CITYNET, 8-80 Cities, etc.**
 - **List of VIPs**
 - **International : Tehran Mayor, Adelaide Mayor, Toyama Mayor**
 - **Government : Prime Minister, Minister of Environment Ministry**
 - **Korea : Seoul Vice Mayor, Suwon Mayor, Gimpo Mayor**
- *Keynote speaker: Gil Penalosa (Executive Director, 8 – 80 Cities)**

Main Program

Conference

- EcoMobility Changwon Congress 2011
- World Bike Festival

Side event

- Practitioners' study visits
- EcoMobility related Film
- Bike race, Demo bike

Exhibit Event

- Pavillion of future mobility
- Pavilion for P.R & Culture Zone
- Experiment Pavillion

Expected Effect

- To speed up green growth of Korea by launching the "Global Alliance for Public Bike Cities" for the first time in the world
- To have an opportunity to combine the world's best case studies of advanced cities and Korea's IT technology

Global result

창원의 자전거 정책은 세계와 UN에도 알려져 있습니다.
국무총리와 지방공무원과의 대화 한승수 국무총리 ('09. 4. 6)



LivCOM Awards(살기좋은 도시대상) 은상 수상



ICLEI(자치단체국제환경협의회) 세계총회 뉴비자 발표



UN-HABITAT(유엔 인간정주위원회) 뉴비자 발표



UNITAR(유엔훈련연구기구) 뉴비자 발표

자전거특별시

창원

Thank You

<http://nubija.changwon.go.kr>

창원시
CHANGWON