
Economic Megatrend of South Korea & Case Study

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Economic Megatrend of South Korea

☐ Vibrant R&D

- Investing in R&D the 4.2% of GDP and activating in tech start-ups
- Producing the most PhD level experts, compared with the population
- Having an opportunities of intellectual property rights, licensing and partnership

☐ Expanding FDI to USA

- Korean FDI to USA(**\$40 billion in 2016**) is 13th in all over the world, and 3th in Asia(1th Japan, 2th Australia)
- Ex) Samsung Electronic invest in Austin, SK innovation in Georgia and San Diego

☐ Huge Consumer Market

- E-commerce has been raised 2 times under the Korea-US FTA
- Duty free goods under \$200, such as supplements, handbag and food, enriched 95% of imported goods

E) Costco store at Yangjae in Seoul is the biggest sales all over the world

- PANGYO ZERO-CITY - Autonomous Driving Pilot City

History

2014



SPM (Smart Personal Mobility)

- Fully Electric Vehicle based Unique Model
- In/Outdoor Autonomous Driving

2017



PANGYO ZERO Shuttle

- Fully Electric Vehicle based Unique Model
- SAE Automation Level 4
- V2X based Connected Autonomous Shuttle

2013



AEV (Autonomous Electric Vehicle)

- Fully Electric Vehicle
- SAE Automation Level 3

2015



PANGYO ZERO CITY

- ICT based Autonomous Driving Pilot City
- Designed for Pilot Stage Research and Development

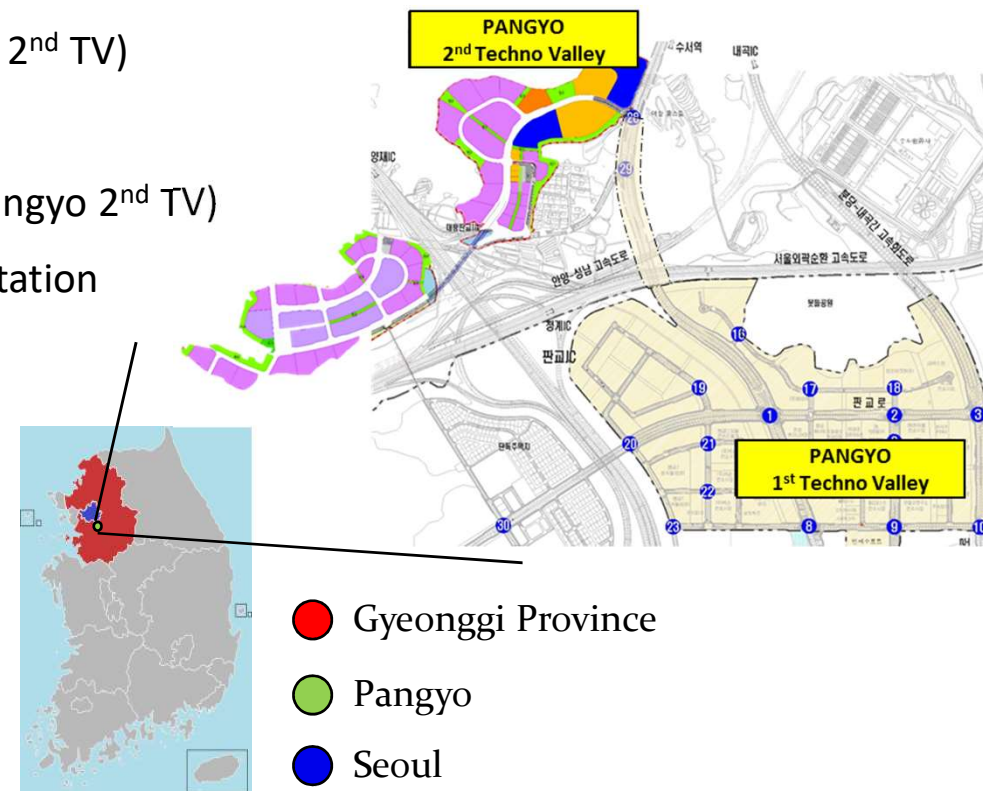
‘PANGYO ZERO CITY’ Project Overview

□ Location

- Pangyo 1st & 2nd Techno Valley, Seongnam City, Gyeonggi Province
- **International and Industrial Complex, IT, BT,CT, NT co. (2020)**
- Area: 1,100,000m²
 - 660,000m² (Pangyo 1st TV) + 440,000m² (Pangyo 2nd TV)
- Floating Population: 136,324person
 - 63,504person (Pangyo 1st TV) + 72,820person(Pangyo 2nd TV)
- After 2020, Many commuters will ride Public transportation

□ Development Schedule

- Period : 2015 ~ 2019
- Infrastructure Construction : 2017 ~ 2019
- Test Operation : Jul. 2018 ~ Mar. 2019
- **Public Service Provision : Apr. 2019**



Goal of Autonomous Pilot City, 'PANGYO ZERO CITY'

ZERO "Accident"

Real World & ICT based
Autonomous Driving Test bed

ZERO "Carbon"

Electric Vehicle Service
Pilot City

ZERO "Cost"

Open Platform based
Support to
Industry Ecosystem

ZERO "Regulation"

Build a regulatory
sandbox

[Open Platform]

User AV, IoT, AI, Big-data, ...

EV Platform, EV Service, ..

Business

Government

5G

V2X

HD Map

Integrated
Control Center

PANGYO

IoT Road Infra

Big-data

Subsidy + Charging Infra.

Start Up Incubating

Government + Private
Governance

EV Autonomous Shuttle

Global Standard

Regulation Sandbox

Pilot Projects

Autonomous Shuttle Service / V2X based Cooperation Urban Autonomous Driving / 5G based Autonomous Driving Public Service / ...

Concept of Design

Like My Doggy !



Test Operation Plan of ZERO SHUTTLE

- Operating Period and Time
 - 2018 ~ 2019
 - Weekday, AM 10-12, PM 2~4
 - Operating in day time
- Driving Information
 - Vehicle : 2 ZERO SHUTTLES
 - Passenger : 11/vehicle
 - Cruising Speed : 25km/h
 - Travel Distance : 9km
 - Traffic Signal : 15 times
 - Left Turn : 4 times
 - Right Turn : 2 times
 - Lane Change : 12 times

