TOURISM and Technology:

Understanding and Managing Technological Change

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HOW CUSTOMER BEHAVIOR CHANGED?

PAST	PRESENT & FUTURE
Technology makes the experience worse	Technology makes the experience better
Open 9 to 5* 5 days	Open 24* 7
Customers find content	Content find customers
Online reviews were not important	>67% depend on online reviews before any purchase
Influenced by advertisements	Word-of-mouth and social media are far more influential
Preferred desktop over mobile	Prefer mobile over desktop

Source : Enhancier Cx Solutions

Industrial Revolution History

Increasingly fast cycle of industrial revolution

An increase
In range and
influence

Industrial
Revolution
HISTORY

The First

Second

Third

Fourth

5g, AI, Robot
AR, VR

1784   1870   1969   2015
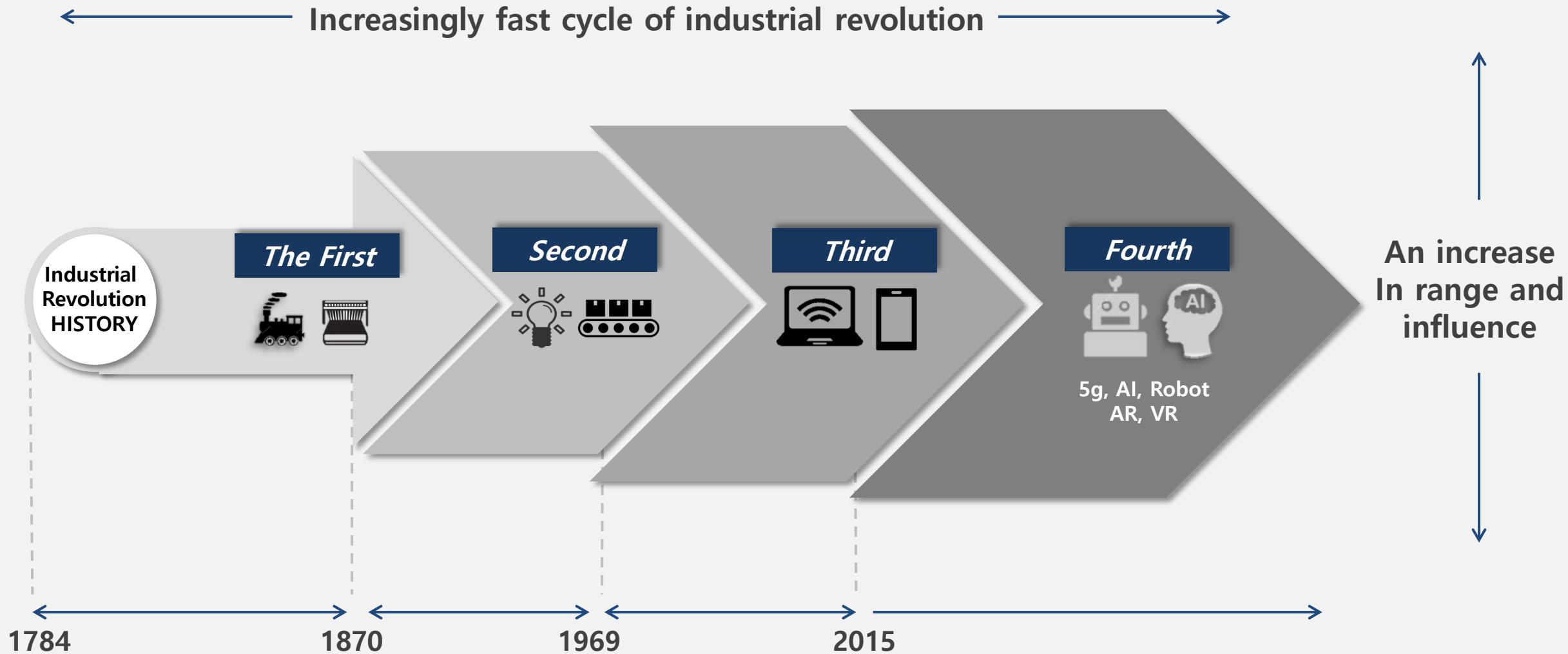
Source : KT Economic Management Institute

4IR IS ABOUT CONNECTIVITY

It's about **linking physical networks with cyber networks as one system**, to allow real time information flow. Boosting the value add to customers.

Source : @EEF_Economists eef.org.uk/fourthindustrial

Technology

Connectivity

Tourism

Today's Tourism

Tourism services have traditionally been provided by businesses such as hotels, taxis or tour operators.
Recently, a growing number of individuals are proposing to share temporarily with tourists what they own (for example **their house or car**) or what they do (for example **meals or excursions**).

- EPRS, 2017.1, Maria Juul

" **Technology enhance connecting travelers with others.** "

Digital Darwinism

is the phenomenon when technology and society evolve faster than an organization can adapt.

Tourism Policy: Preparing Technology Evolutions

- **Taking steps to future-proof tourism policy**

- **Modernizing regulatory and legislative frameworks**

- **Cultivating partnerships with industry, other governments and stockholders**

Source : www.oecd.org/cfe/tourism
http://stats.oecd.org/

1. Taking steps to future-proof tourism policy

- **Promoting a culture of improvement and future-oriented thinking.**

- **Monitoring megatrends and long-term scenario planning exercises.**

2. Modernizing regulatory and legislative frameworks

- **Undertake regular reviews of regulatory frameworks.**

- **Engage stakeholders in the development of new regulatory frameworks.**

Need laws to regulate the tourism industry

Tourism Promotion Act

Travel agency

Tourist accommodation business

Tourist facilities business

International convention business

Casino business

Amusement facility business

Tourist convenience facilities business

Tourism Promotion Basic Act

Tourism Business Act
= Travel agency, Casino business
International convention business,
Amusement facility business

Tourist Accommodation Promotion Act
= Tourist accommodation business

Tourism Development Act
= Tourist facilities business,
Tourist convenience facilities business

Check point

**Travel platform service, tourist souvenir, travel map,
AR VR sightseeing experience, etc.
Some tourism venture is not tied up anywhere.**

3. Cultivating partnerships with industry, other governments and stockholders

- The **impacts of megatrends** and the process of policymaking are more **crosscutting** than ever before.

Cultivating Tourism Ventures

1. Cultivating Tourism Ventures

- **Customized Consulting (Tourism Venture Lab Account)**
- **Funding (Crowd funding)**
- **Legal advice and regulatory improvements**

2. Introducing in-house tourism venture system

- **Innovation model of public institution venture**

- **Launching KTO Tourism Technology lab**

  ▶ **Online Tour Secretary : Train social disadvantaged people such as the handicapped as an online tour guide**

Tourism Venture Business Performance

KOREA Tourism Organization

Prof. Yoon

Excavation
344

Founded
246

Employ
1,079

Key performance figures for 2016 (2011 - 2016 self-aggregate)

2011

Demonstration in 2011 Investment Support Team Pilot Project 1st Tourism Venture Business Contest held

2012

Introduced in 2012 Established a dedicated organization [Tourism Venture Team] Held the first start-up competition

2013

Quantitative expansion in 2013 Senior Management Consultant Operations Division Tourism venture business BI development and database construction

2014

Qualitative expansion in 2014 National Geographic Travel Fair 2015 - Operation of Tourism Venture Company

2015

Since 2015 Support for growth phase (Preliminary tourism venture business, tourism venture business) Fund creation and fund special loan operation Culture Creation Belt Cel Venture Complex
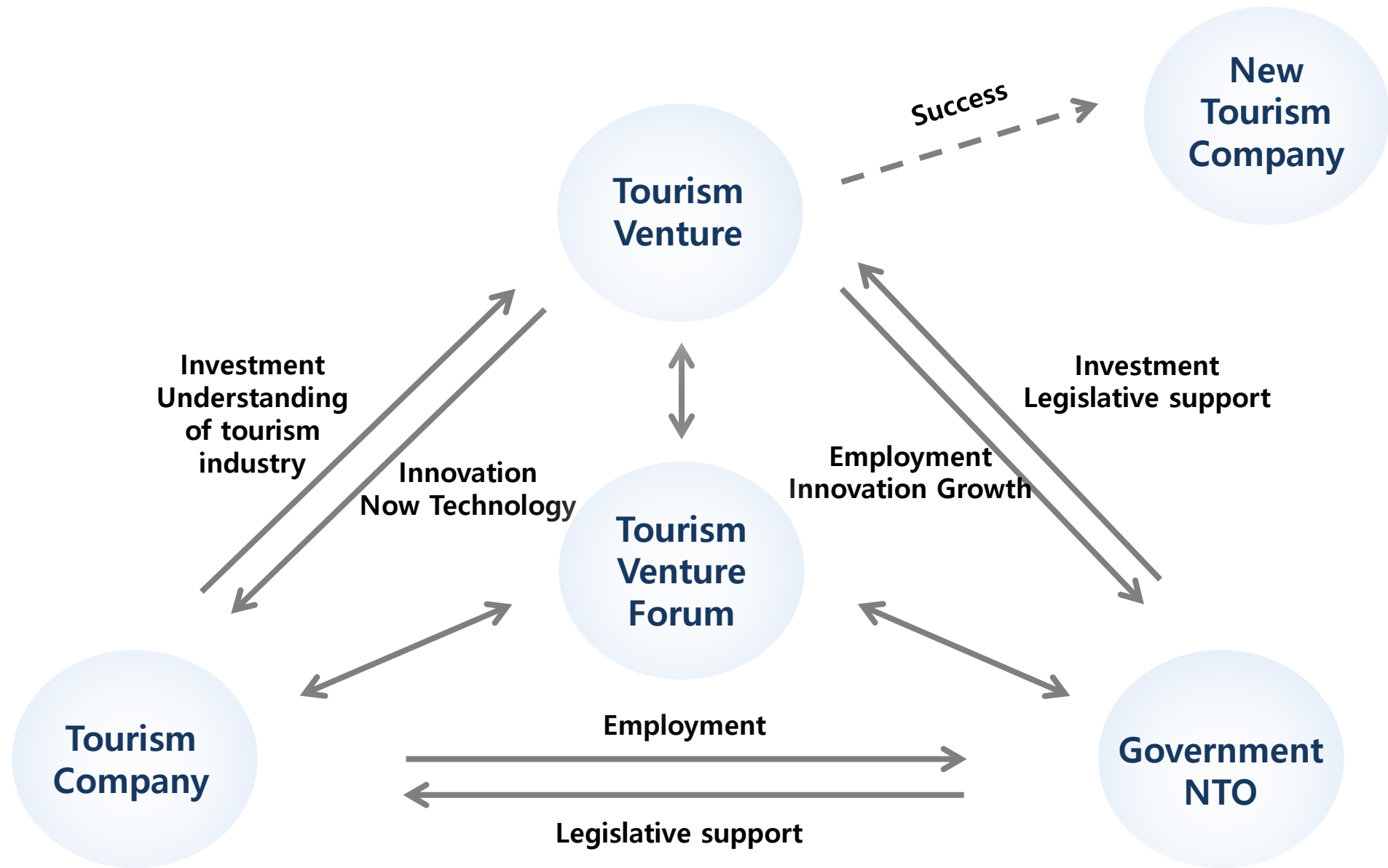
2016

2016 The 6th Industrial Venture Venture Business Contest Expansion of tourism venture fostering fund Tourism Promotion Development Fund Special Loan
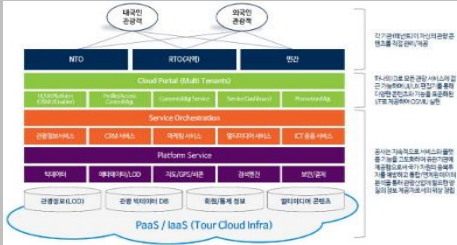
A plan for smart tourism in Busan

1. Improvement of travel information system

1
Integrated management of tourism information system

Integrated management of tourism information distributed to City / Town / County and Busan Tourism Corporation

Build a cloud-based tourism information platform

2
Reorganization of Busan Tourism App

Location-based (map) service, SNS integration, user-friendly UI / UX implementation

Location-based (map) service, SNS integration, user-friendly UI / UX implementation

3
Open Travel Information, and Content

Activation of Busan tourism app development through free publicity of tourist information (text, photo, image data, etc.)

4
Activation of tourism contents through civil cooperation

Alliance with private companies such as Naver Place and Kakao Tour Tips, to strengthen mutual cooperation

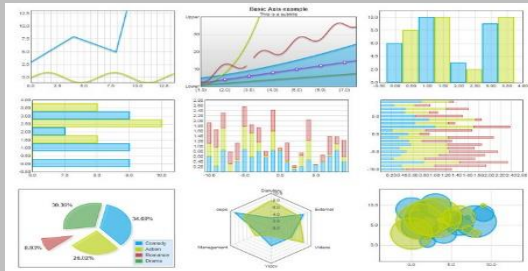Strengthen the provision of tourist information using Google Map, Youtube, and TripAdviser

Continuous update and management of systems and content needed

A plan for smart tourism in Busan

2. Establish scientific tourism policy using Big Data

1 **Re-establishment of travel statistics index and establishing data-based scientific tourism policy**

2 **Tourist inflow route Analysis**

3 **Travel Pattern analysis**

4 **Travel Consumption Behavior Analysis**

Re-establishing the current tourist statistics index using big data

Development of tourism products and services based on scientific data

Analyze the size, increase / decrease rate, demographic characteristics, and influx of domestic and foreign tourists visiting Busan

=> reflect them in tourism policy

Analyze preferred tourist destinations, time of stay, and travel routes of domestic and foreign tourists

=> reflect them in tourism policy

Analyze the patterns of consumption, area, time, items, and expenditure of domestic and foreign tourists

=> reflect them in tourism policy

Improve efficiency of tourism policy through big data analysis

A plan for smart tourism in Busan

3. Development of user-friendly smart tourism service

1
Travel guide service combined with Beacon / AR technology

Nampo-dong / international market

Tourist attractions / restaurants location information and guidance service using Beacon-based technology
Providing Events, discount coupons and stamps using Beacon-based technology

2
Exhibition guide service combined with beacon / AR technology

National Maritime Museum

Providing text, audio, and AR information for exhibits using Beacon

3
Activation of traditional market using Beacon / AR technology

Bujeon Market

Tourist attractions / restaurants location information and guidance service using Beacon-based technology
Providing Events, discount coupons using Beacon-based technology

4
Walking tour service combined with AR game

Gamcheon Culture Village

Walk tour service combined with AR game elements
(benchmark 'Pokemongo')

User-centered content planning, continuous management of post-content, participation of business owner needed

A plan for smart tourism in Busan

4. Vitalize tourism through Smart City Service

1 Smart parking

Busan City

Eliminate parking difficulties around major tourist attractions and support faster and more convenient parking for tourists
(Offer information of available Parking space , Parking reservation and payment, Parking lot sharing etc.)

2 Prevention of missing children using smart band

**Haeundae Beach
Busan Citizen Park**

Identify the location of lost child and Support rescue activities using smart band

3 Maritime safety service using drone

Haeundae Beach etc.

Real-time monitoring of marine safety accidents such as drowning using drone
Surveillance of marine environment such as rip currents and jellyfish etc.

4 Smart tour guide service based on IoT

**City Tour Bus
Haeundae Beach**

Busan city tour smart unmanned tourist information service development
Provide PR contents using Beacon and Geo-Fence technology
Provide virtual experience service (ex. experience recommended course guide in advance etc.)using VR

Smart City Service is convenient for Busan citizens as well as tourists

A plan for smart tourism in Busan

5. Development of Future-oriented Tourism Contents and Service Technology

1

Tour guide service using interactive AI technology

Interactive translation and interpretation services using interactive AI technology(Pilot test applied on tourist taxi)

Directions, tour guide services using interactive AI technology
(Pilot test applied on Tourist information center, major subway station)

2

Development of tourism products using autonomous navigation tram

Development of new tourism products using unmanned trams

3

VR/AR experience tourism contents production

Development of tangible experience tourism contents such as VR / hologram

VR-based scuba diving, marine sports experience contents, hologram-based whale / dolphin show (National Maritime Museum etc.)

4

Development of augmented culture contents product

Develop cultural products using hologram technology

Hologram K-Pop Concert(Busan Won Asia Festival)
Hologram Red　Carpet(Pusan International Film Festival)

Mutual cooperation with private companies with technology is essential

A plan for smart tourism in Busan

6. Support for promoting private sector tourism development

1

Create Segway and Electric Vehicle Tour Environment

Create safe driving environment to activate the promotion of private investment of Segway Tour, Electric Bike Tour

2

Support for spreading media facade as a tourism resource

Spread out through Providing landscape lighting for private facilities and incentives for introducing media facades

3

Travel pass card for internationals

Review the introduction of private sector-led foreigners Travel Pass Card(Mobile card combination, Combined transportation card, discount coupon etc.)

4

Expansion of global easy payment franchisee

Establishment of support plan for expansion of global easy payment for convenience service franchisee such as UnionPay, AliPay, PayPal and ApplePay and cooperation with the private sector

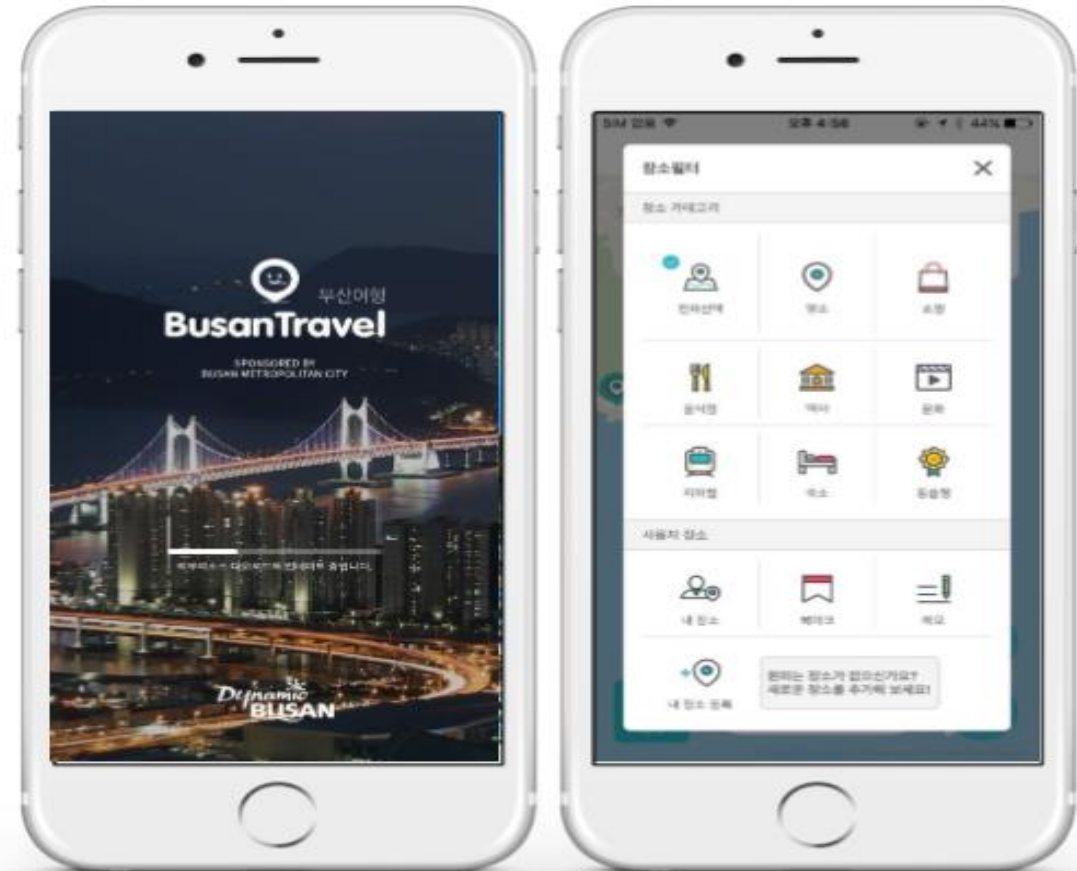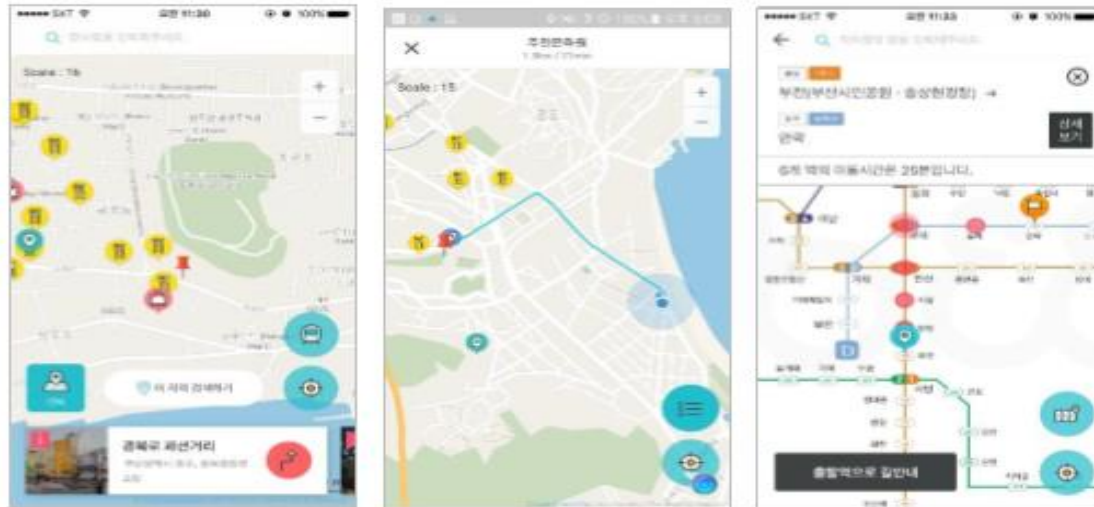# Creating an Effective Mobile Map Service
Dabeeo MAPS - Mobile Solution

Android / iOS
Client: Busan City

- Vector-based ultralight map service
- Multi-language service for Busan (8 languages)
- City map & tourist information
- Route guidance & nearby information
- Price information for accomodation

Prof. Yoon

"Travel is about "interfacing" with other people.

Interfacing with other people through travel is what makes humanity flourish.

Technology make this possible for more people, in more locations, more of time, and more quickly."

Thank You !

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