



Smart Tourism City

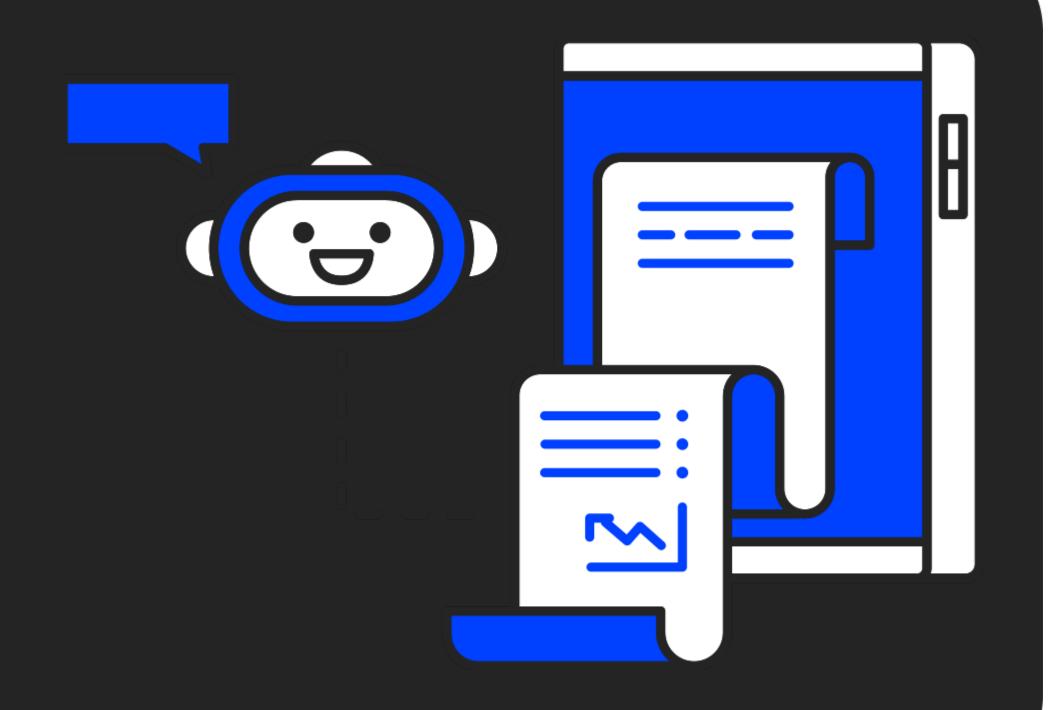
October 26, 2023

Haesook Ma (Deputy Director of Tourism Big Data Strategy Team)



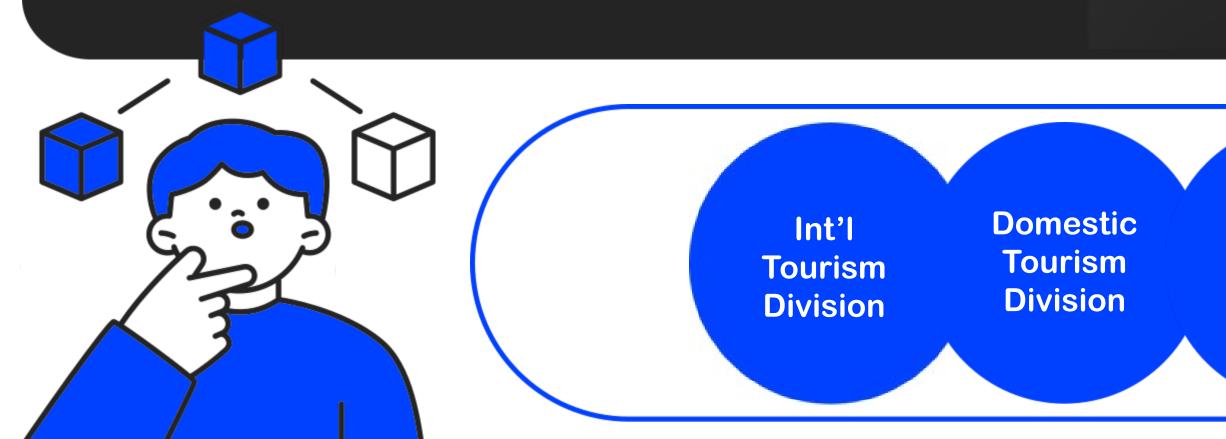
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- 2. Consumer Demand Changes
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- 4. Korea Tourism Big Data Lab
- 5. Smart Tourism City





To advance tourism as a key driver for national economic growth and enhancement of national welfare



Tourism Industry Division

Digital Tourism Division 7

1. Changes in Tourism Market

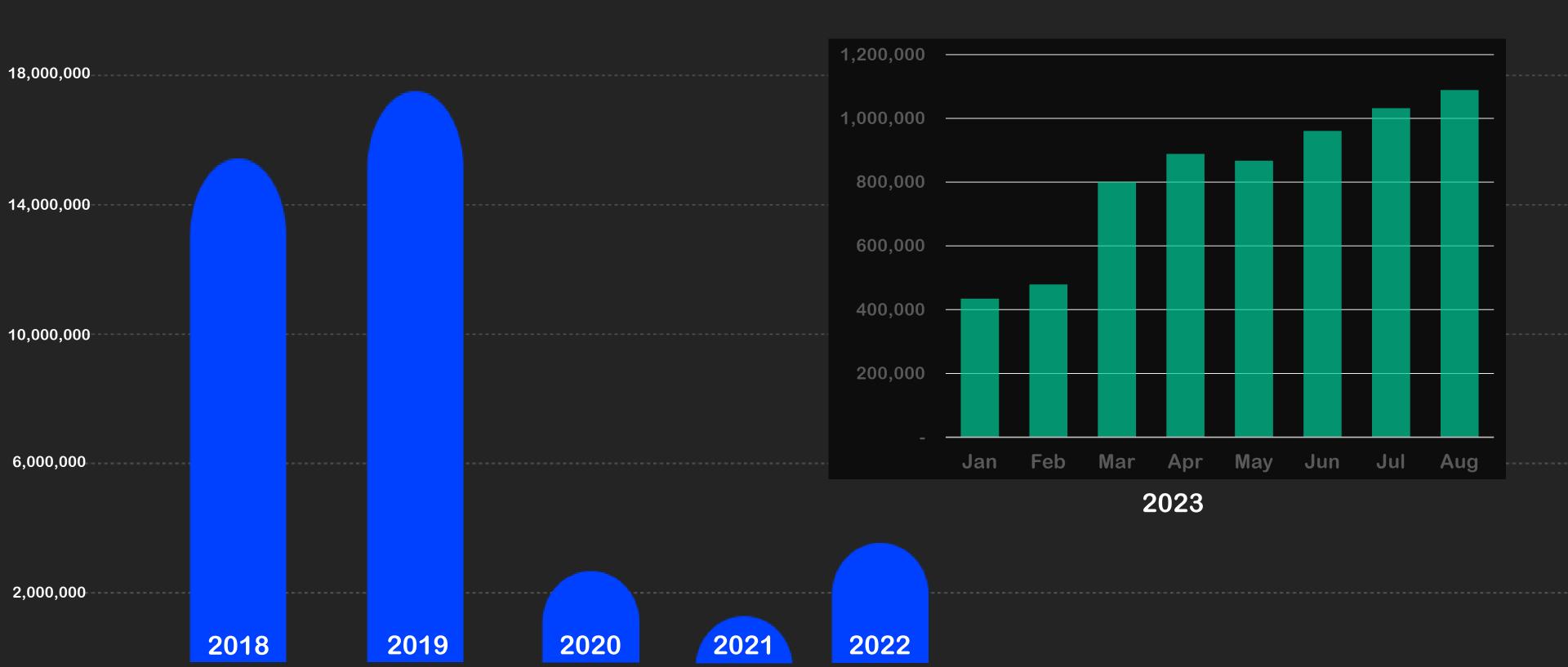
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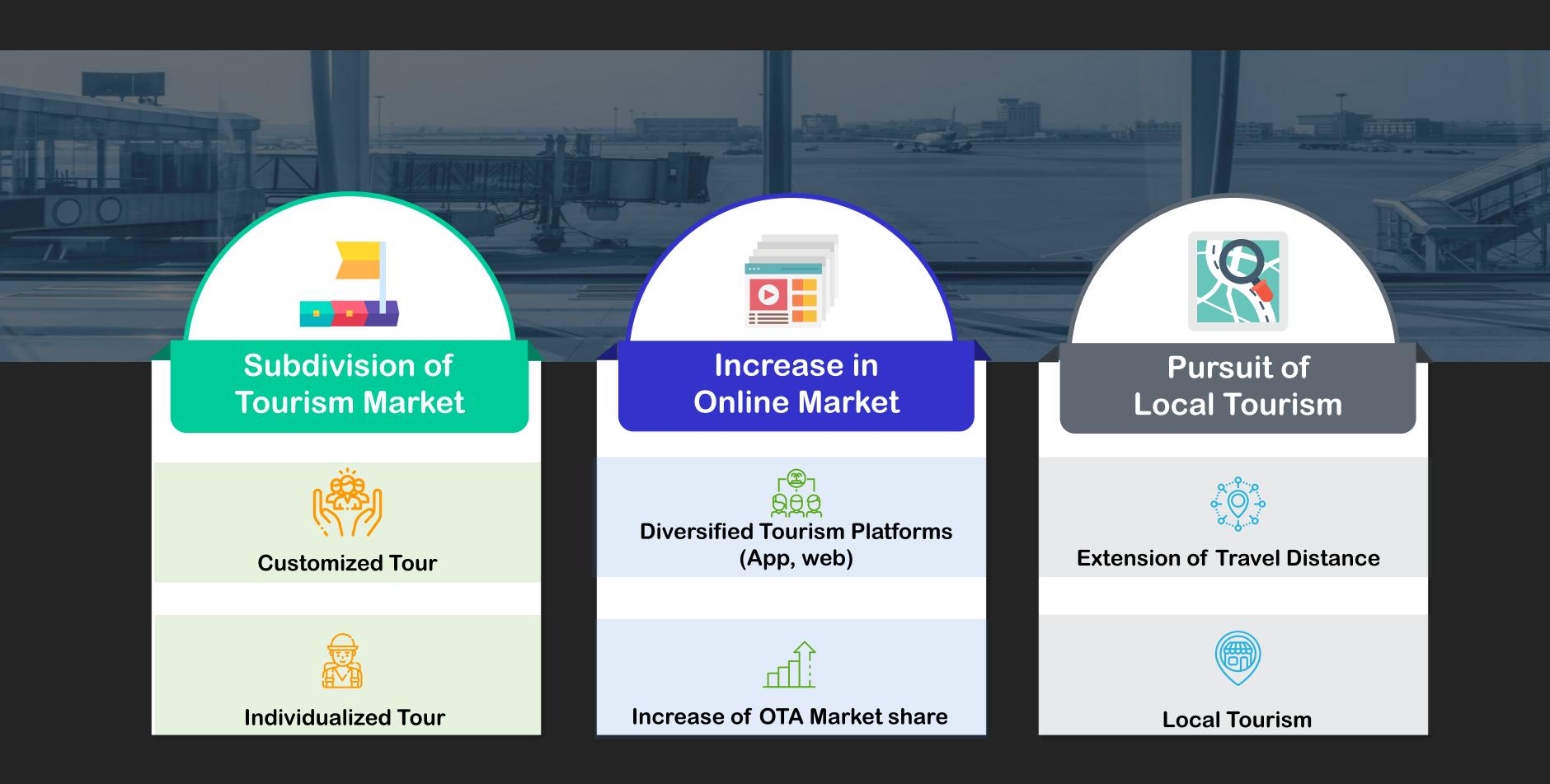
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1. Changes in Tourism Market

The number of Inbound Tourists to Korea has changed before and after the Pandemic.



1. Changes in Tourism Market



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1. Changes in Tourism Market

2. Consumer Demand Changes

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2. Consumer Demand Changes







Tourist

Tourism Business

Local Government

Change in tourism trends such as small-scale tourist destination, local tour, convenience, & pursuit of new experience, etc.

Response to new tourism forms
In periodic trend era of infectious
diseases(endemic)

Design of individual-customized tourism experience



Enhancement of satisfaction with local tourism through provision of digital convenience & customized information, provision of opportunities for tourism experience

Global OTA enterprises expanded enormously with weakening of traditional tourism enterprises

Reinforcement of tourism enterprises' competitiveness

Reinforcement of linked cooperation among enterprises, between enterprise & area



Enhancement of industrial competitiveness through digitalization of tourism enterprises and convergence of database technology & local tourism resources

Accelerated phenomenon of local extinction resulting from reduced population to face the limit on the development of local tourism

Response to population reduction & local extinction through influx of tourists

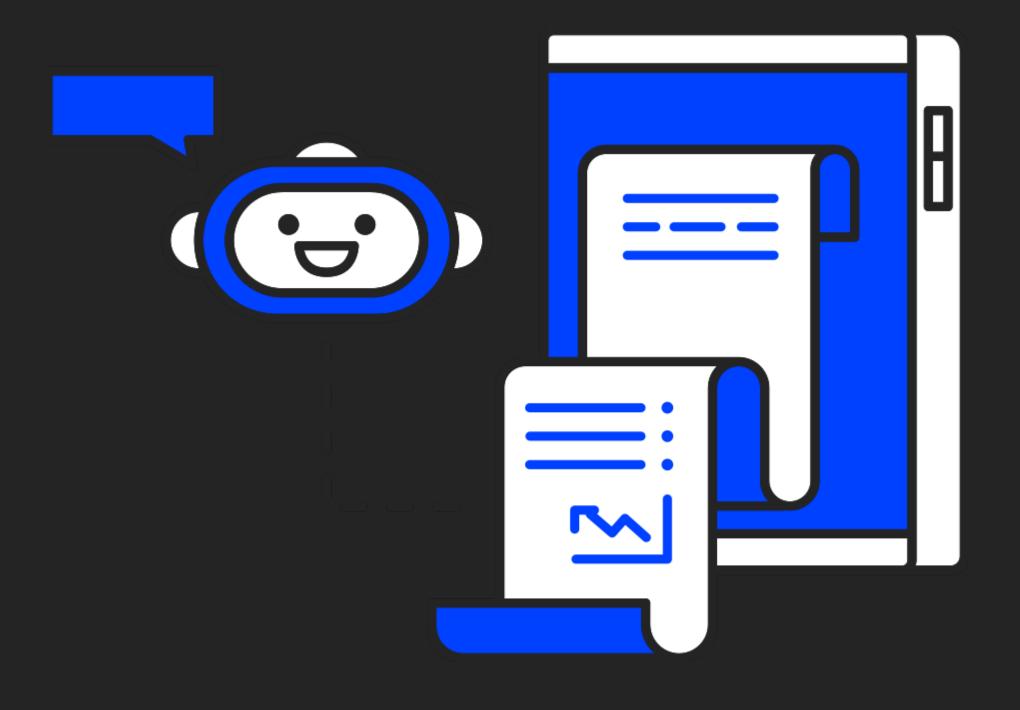
Reinforced competitiveness of local tourism through activation of participation by enterprises & local residents



Enhancement of competitiveness for local Tourism by overcoming limitation of physical infrastructure and discovering diversified & differentiated attraction

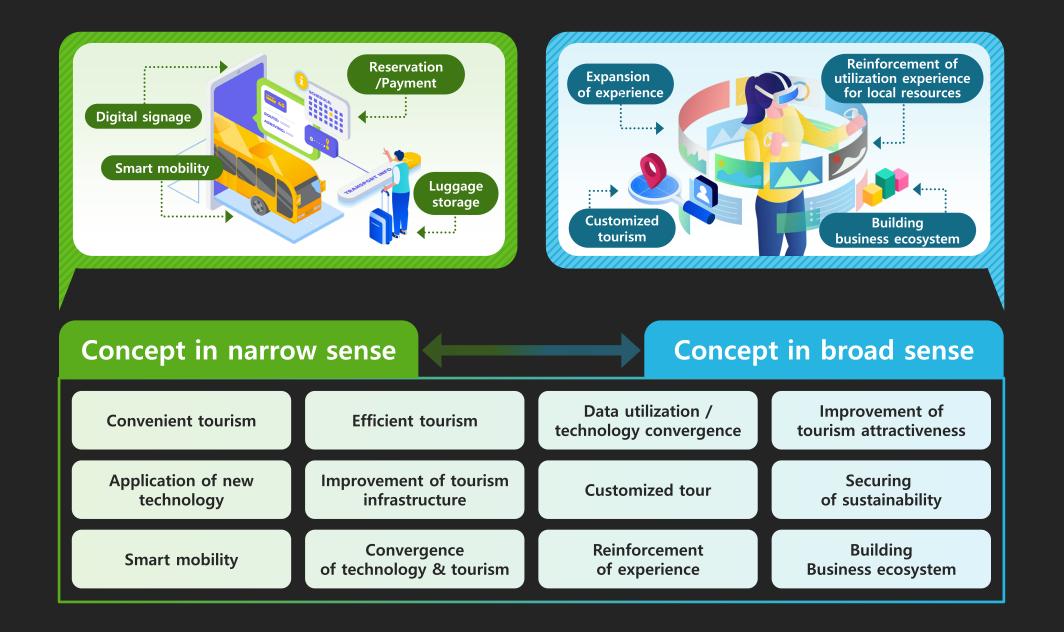
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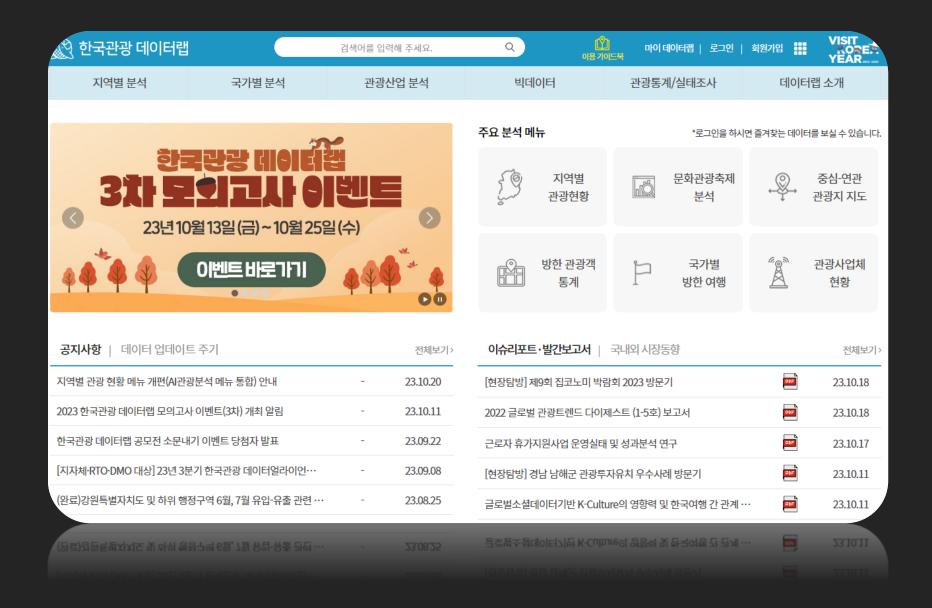
3. Digital Marketing Strategy



Aims to support the Tourism Industry for a data-driven and sustainable decision-making.

3. Digital Marketing Strategy

Korea Tourism Big Data Lab

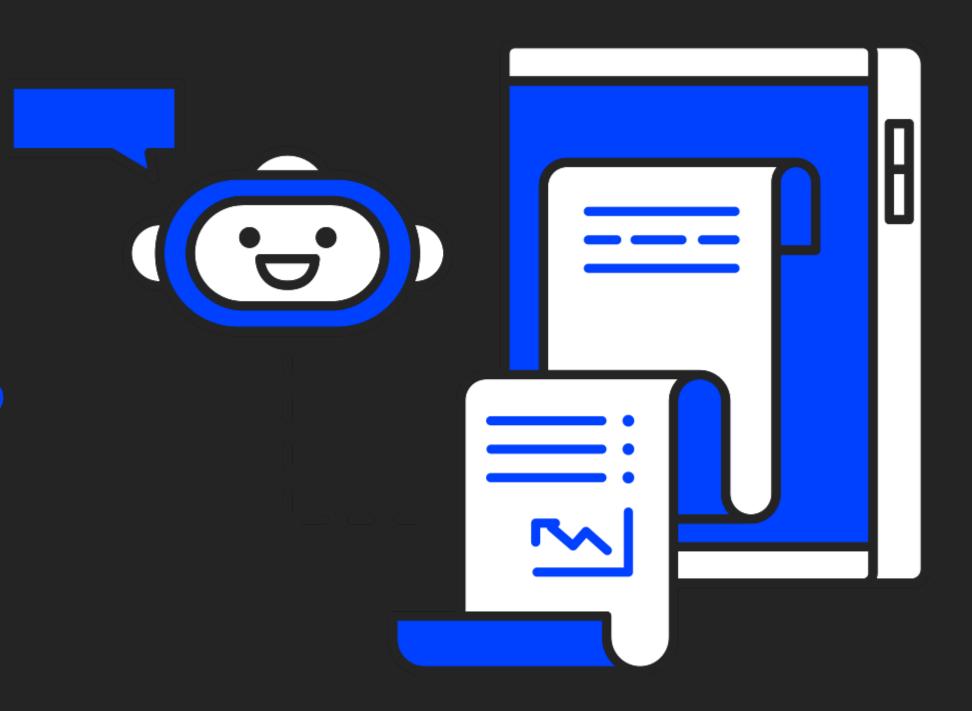


Smart Tourism City



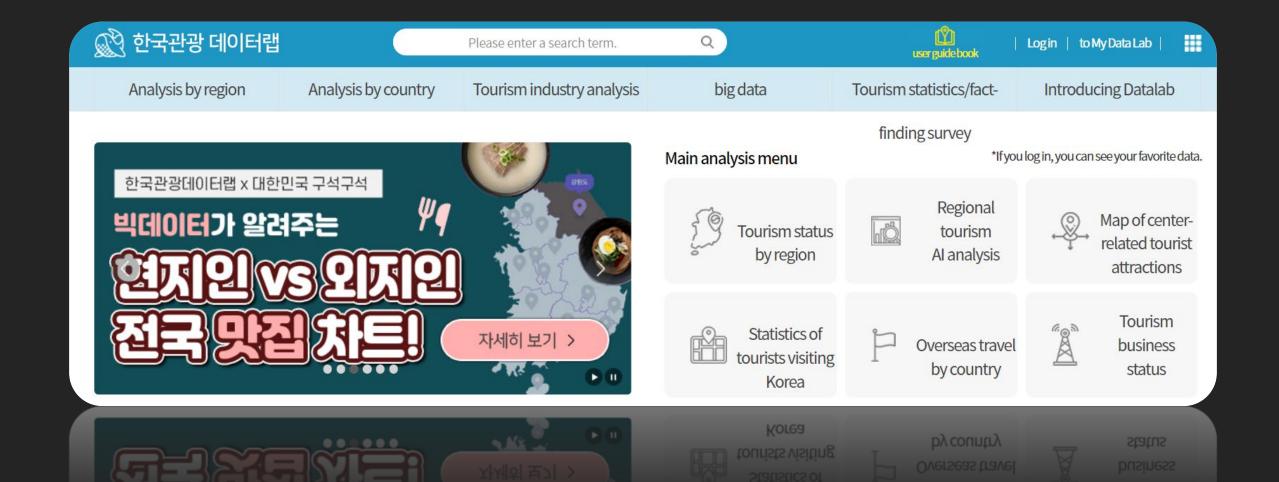


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Korea Tourism Big Data Lab (since Feb 21, 2021)

- (What it is) Tourism-specialized big data platform that provides tourism data and integrated analysis services
- (Target Users) Central and local governments, RTOs, tourism business sectors, academia and etc.
- (Goal) Supporting data-based scientific tourism policy establishment and tourism businesses



Korea Tourism Big Data Lab

- Big Data is a supplementary tool for statistics.
- Help making a better decision for policy-makers and business sectors.

¹⁾ Tourism Statistics: Statistics of foreign tourists visiting Korea, foreign visitor survey, a survey on traveling Koreans, statistics of visitors to major tourist attractions, tourism market research by country/theme

²⁾ Big Data: Mobile Network Operators, credit card expenditure, navigation, social media, company information

Big Data

Mobile Network Operators

Navigation

Credit Card Expenditure

Social Media

Company Information

BIG DATA

TOURISM MARKET TREND RESEARCH

Mobile Network Operators (Koreans & Foreigners)

- Data from 2 operators KT and SKT (60% of the market)

 (* There are 3 mobile network operators; we only collect data from 2 operators.)
- Big Data Guideline made in 2019
 - Raw data not suitable for tourism analysis.
 - Defining terms for analysis such as visitors or foreigners

VISITORS (define a visitor not a tourist)

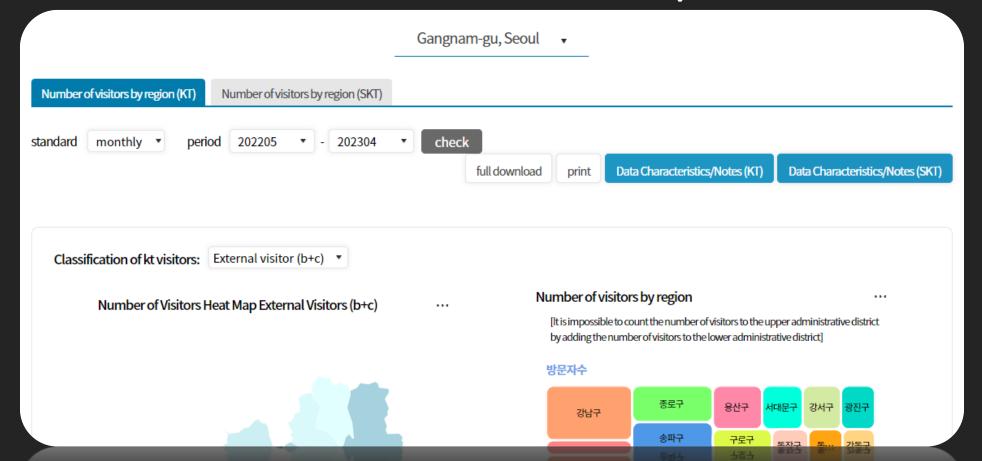
: A person who stayed in a Specific Area or Location for a certain period or longer

FOREIGNERS

: Roaming data of foreigners who stayed less than 15 days in 60 days

Mobile Network Operators (Koreans & Foreigners)

- Customer characteristics gender, age, place of residence, nationality, length of stay can be defined
- Parameter estimation
 - KT using the market share ratio / SKT using age range comparison
 - cannot add the number of visitors from two operators



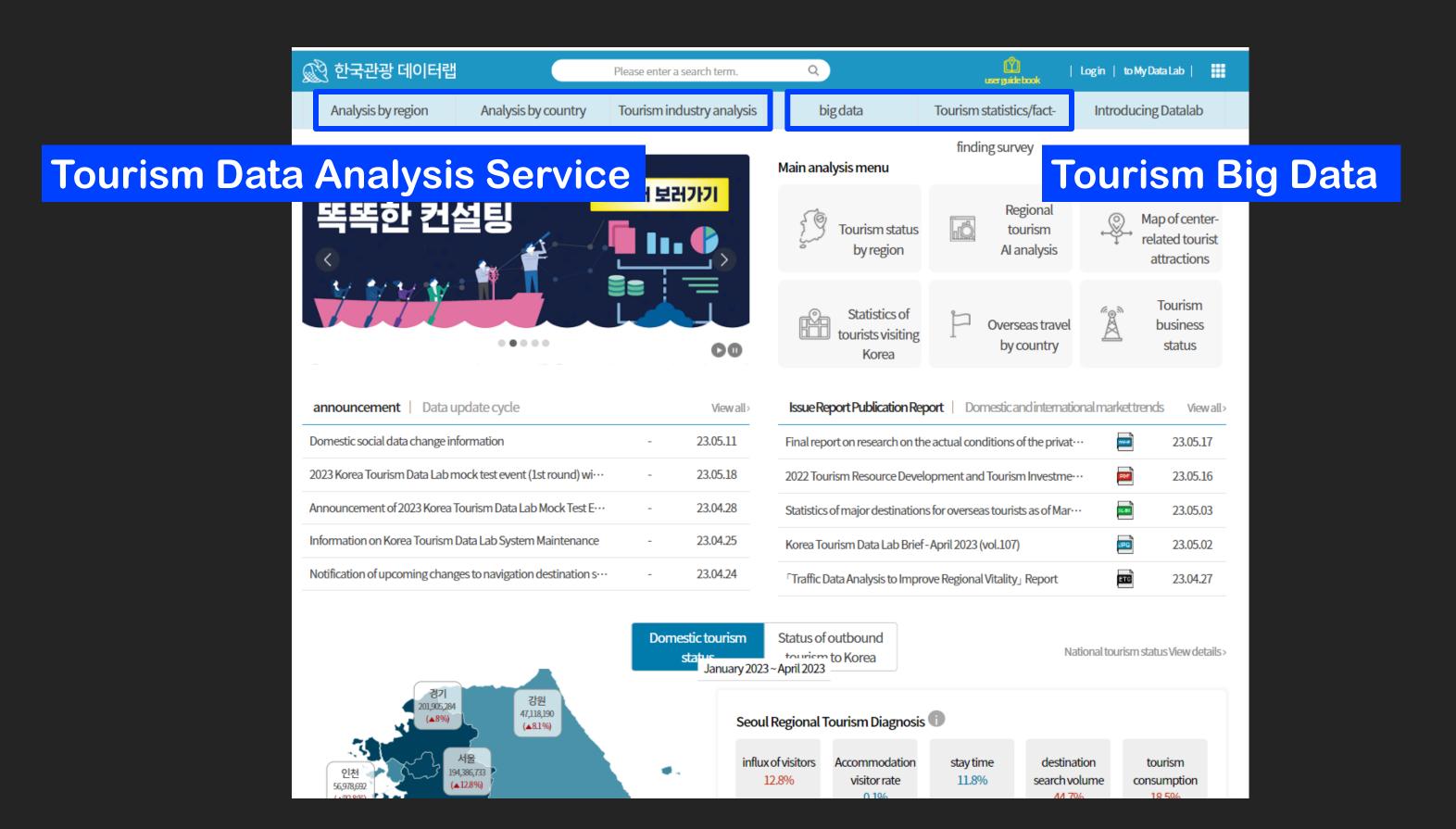
Navigation (Koreans)

- Data from travel by individual vehicle (excluding travelers on foot)
- Destination Search: Traveling more than 100m for longer than 1 min (may not arrive the destination)
- Departure-Arrival data: Traveling more than 1km after entering the destination
- Destination Revisit: verifying what types of visitors visited each destination often
- Can be used for tourist-targeted services such as tourist destination recommendations

Credit Card Expenditure (Koreans & Foreigners)

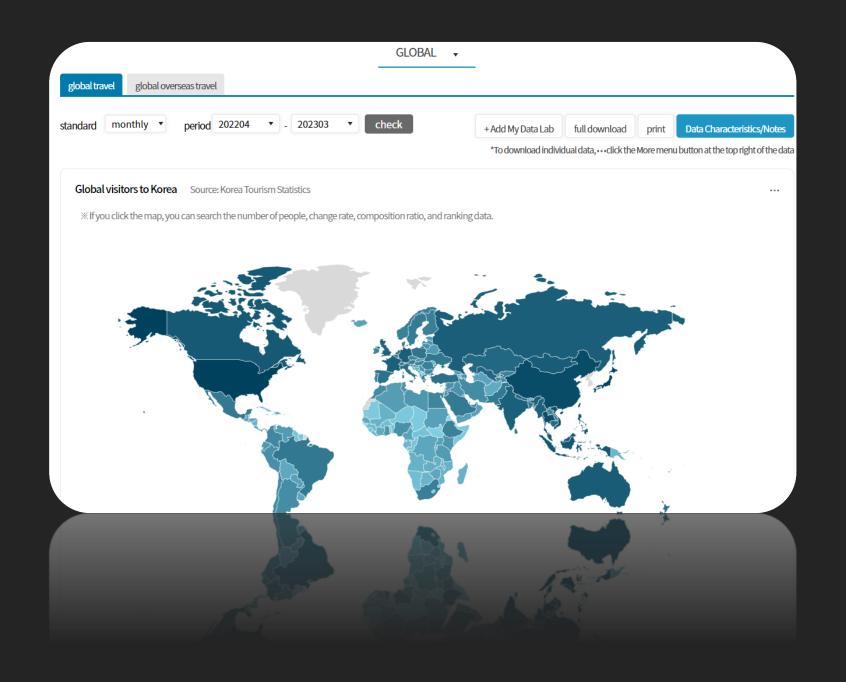
- Data Source: BC card and Shinhan card
 - BC card: an alliance group many credit cards joined the group
 - Shinhan Card: Korean company the 1st credit card company in Korea
- (Basic Info) Date of expenditure, amount, location, gender, age group, etc.
- (Tourism-related Category) Accommodation, transportation, airline, leisure, duty free, online, casino, etc.
- (Life Cycle Info) Single, newly married or family with infants or toddler, family with children, elderly
- No parameter estimated (cannot estimate the whole amount of expenditure in each category)

Main services



Tourism Data Analysis – Inbound Tourism Market Analysis

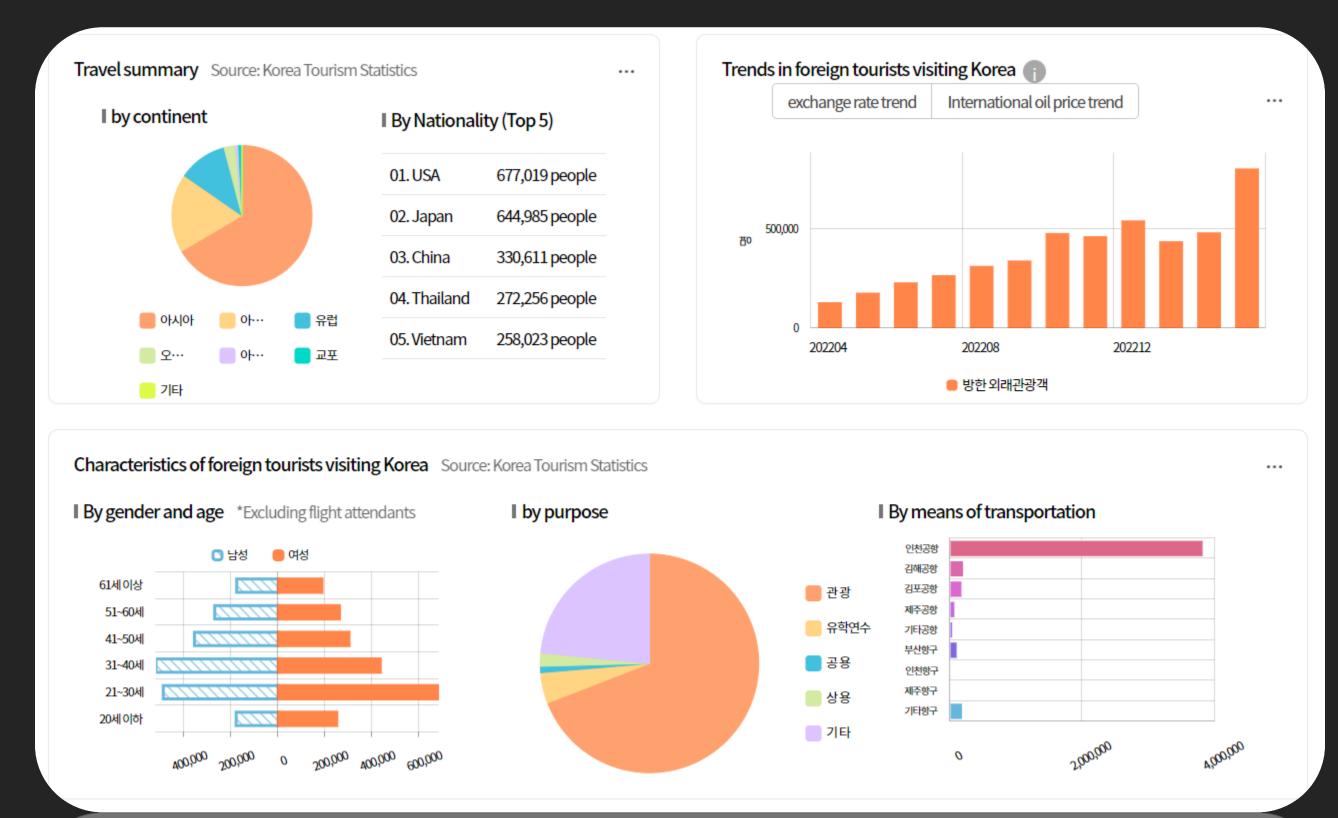
Analysis by country / global status / global travel





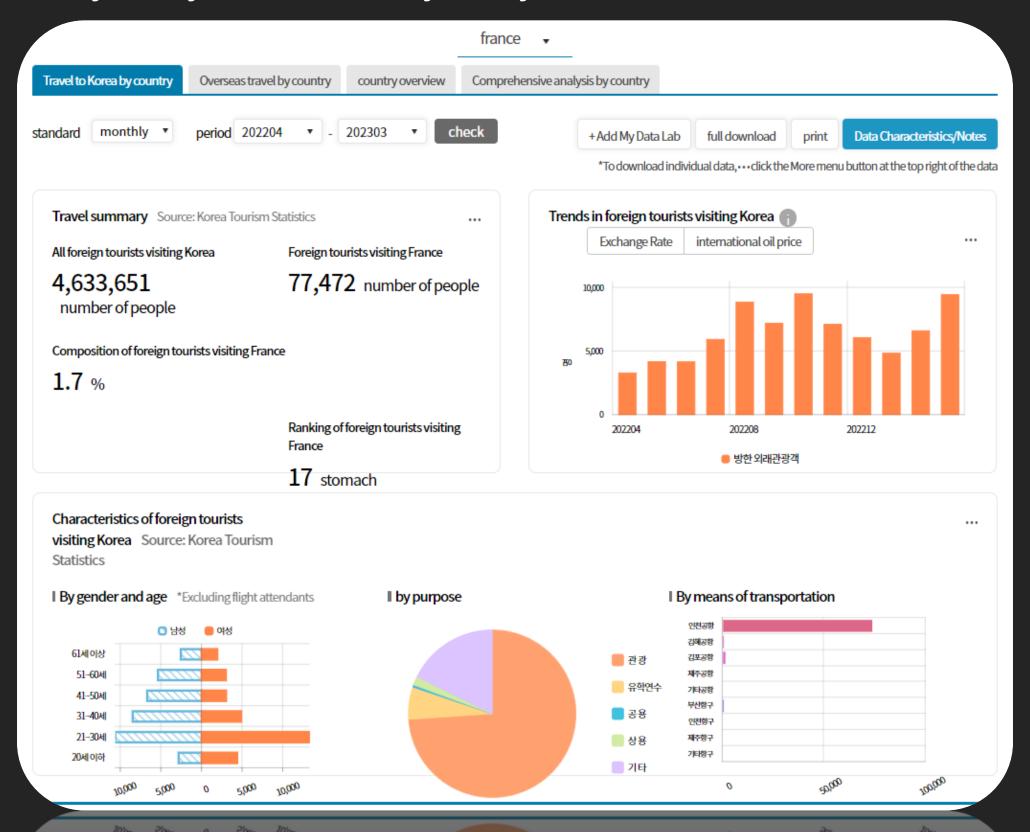
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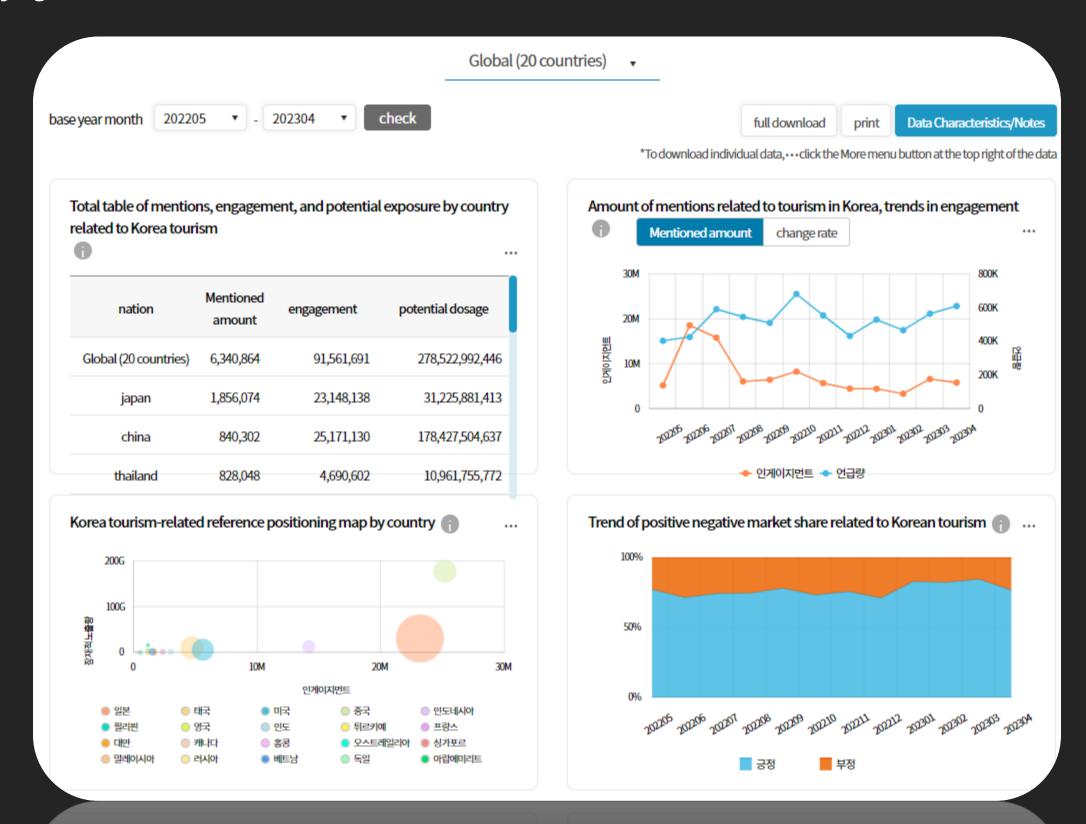
Tourism Data Analysis – Inbound Tourism Market Analysis

Analysis by country / status by country > Travel to Korea by country



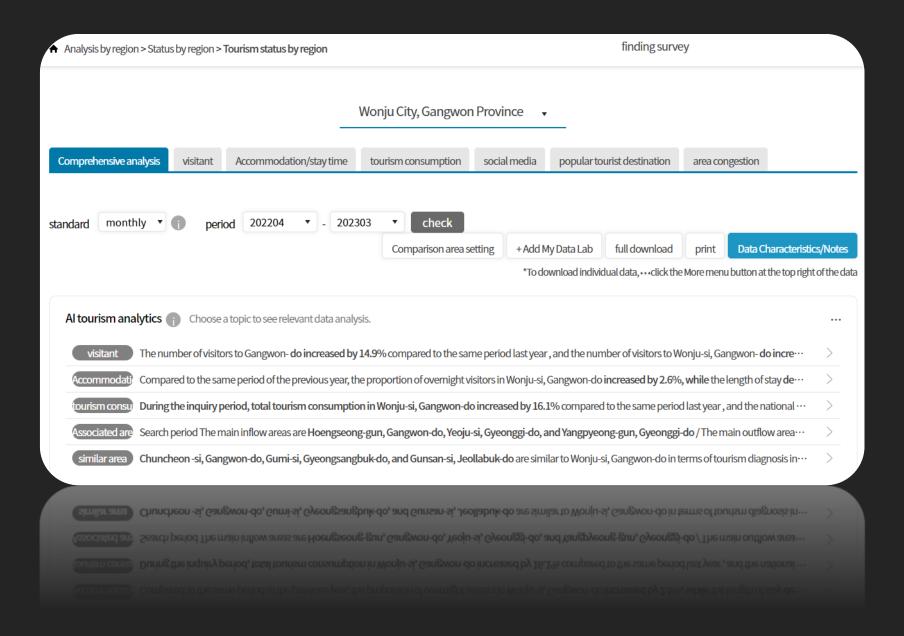
Tourism Data Analysis – Inbound Tourism Market Analysis

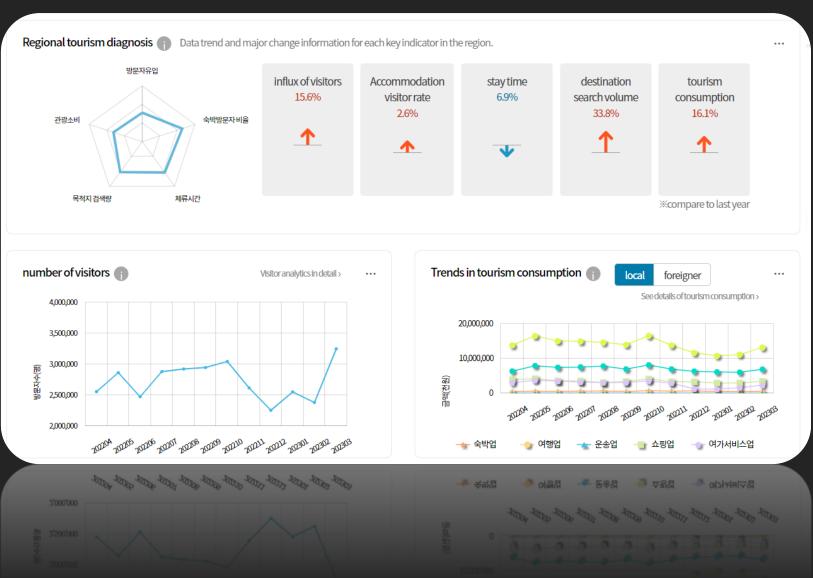
Analysis by country / global social media > Travel trends in Korea



Tourism Data Analysis – Domestic Tourism Market Analysis

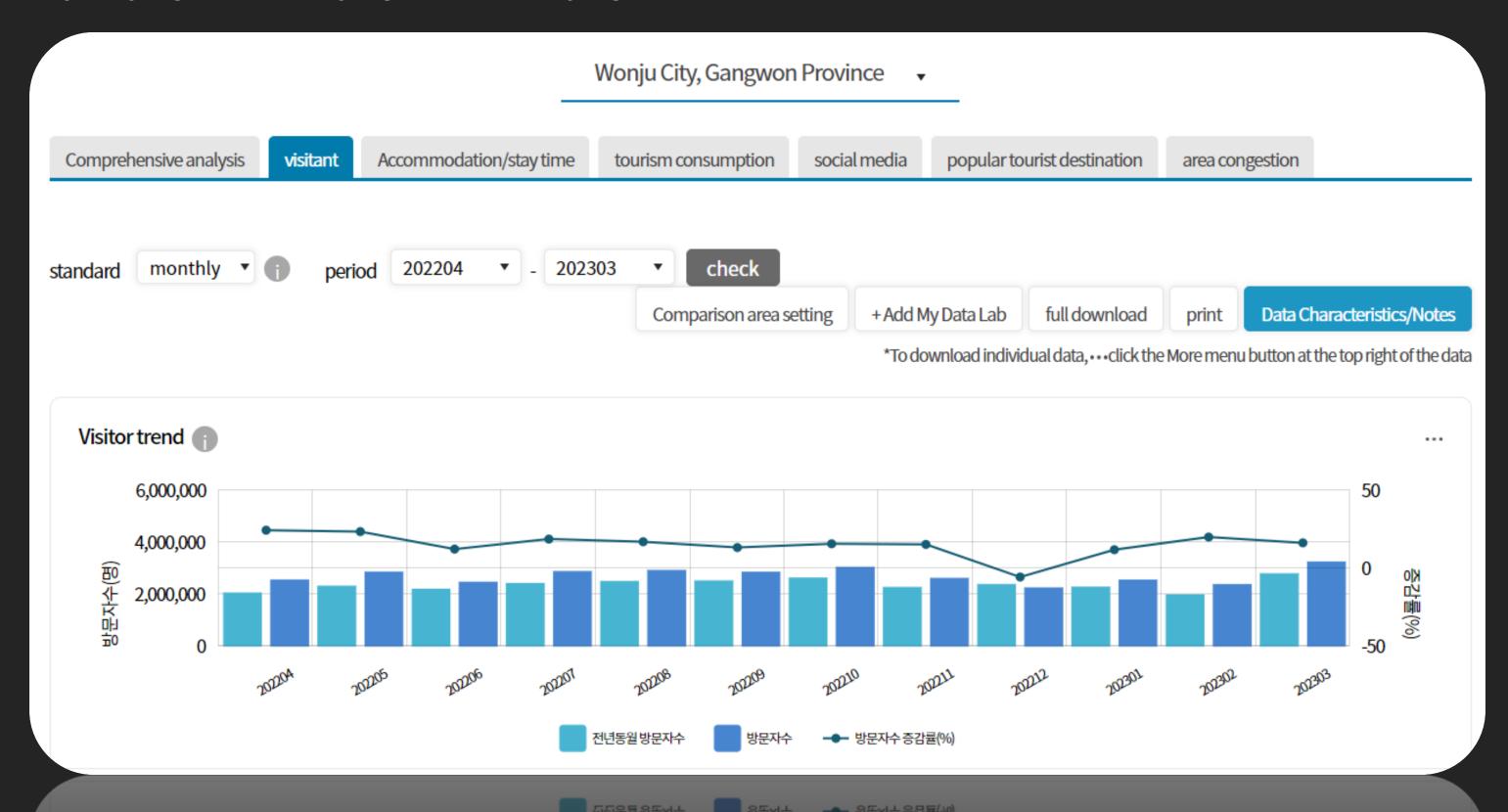
Analysis by region > Status by region > Tourism by region > Comprehensive analysis





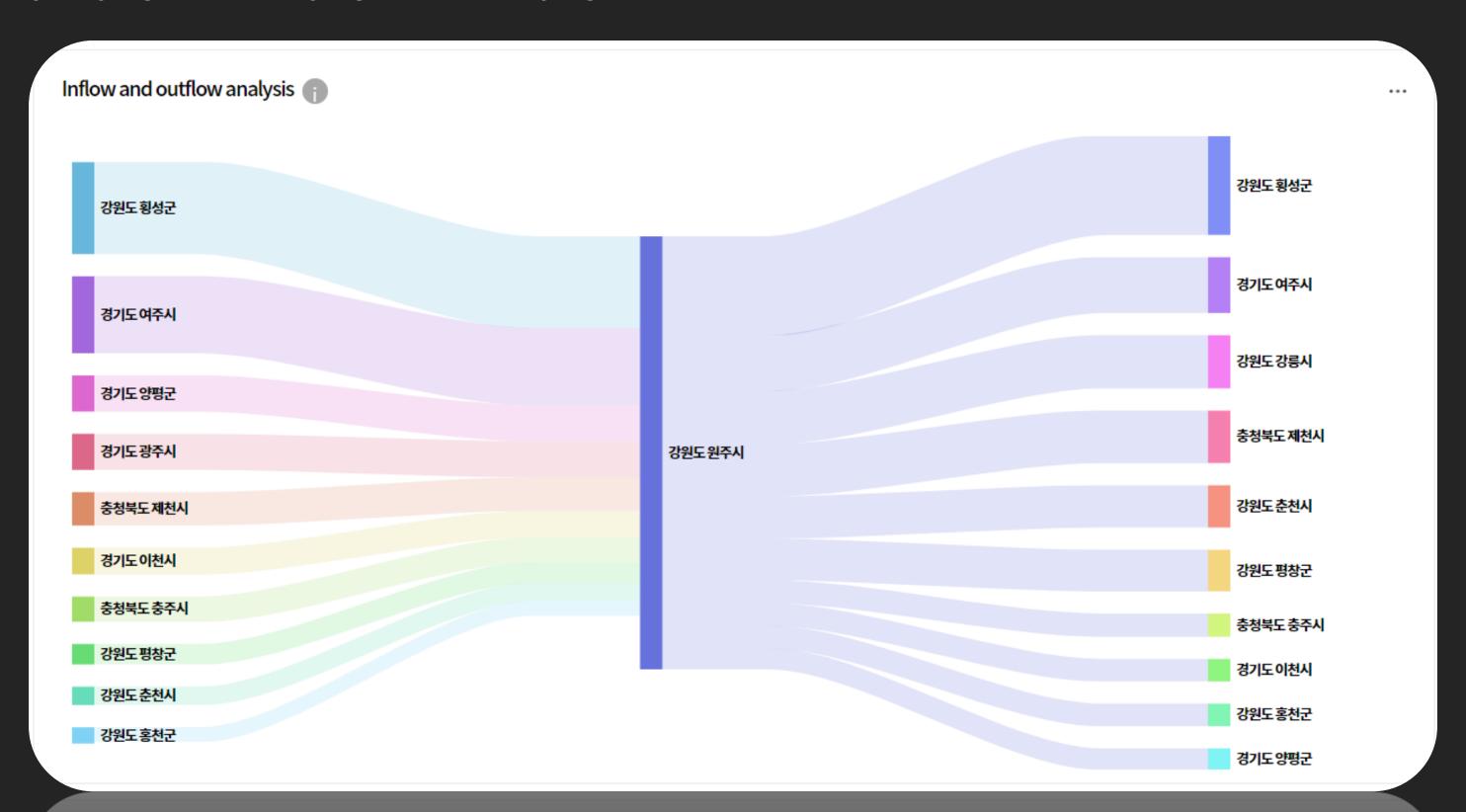
Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Visitor



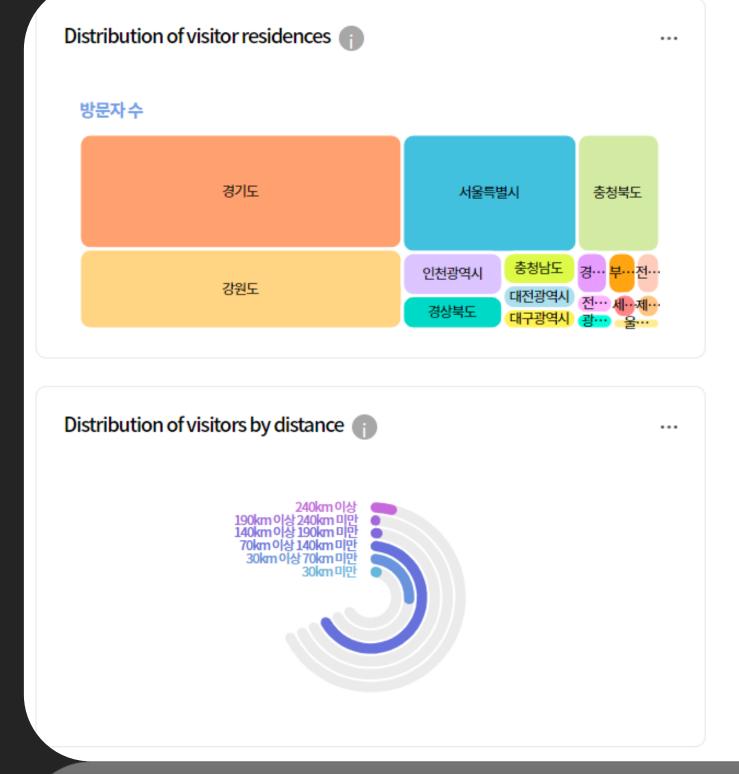
Tourism Data Analysis – Domestic Tourism Market Analysis

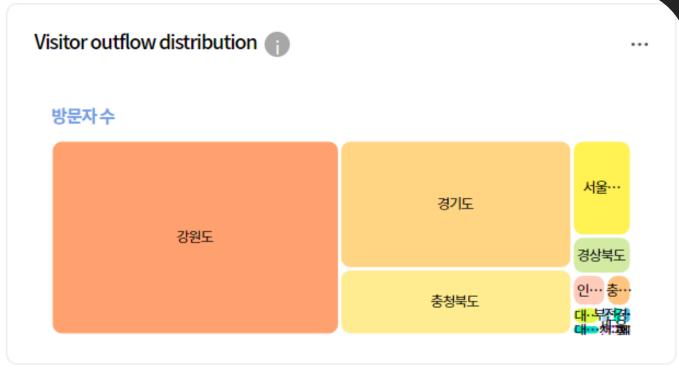
Analysis by region > Status by region > Tourism by region > Visitor

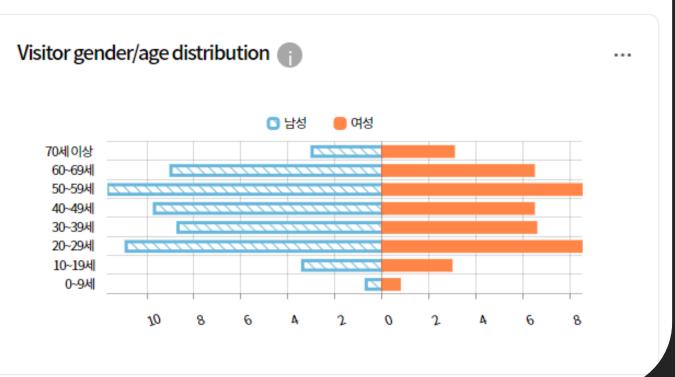


Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Visitor

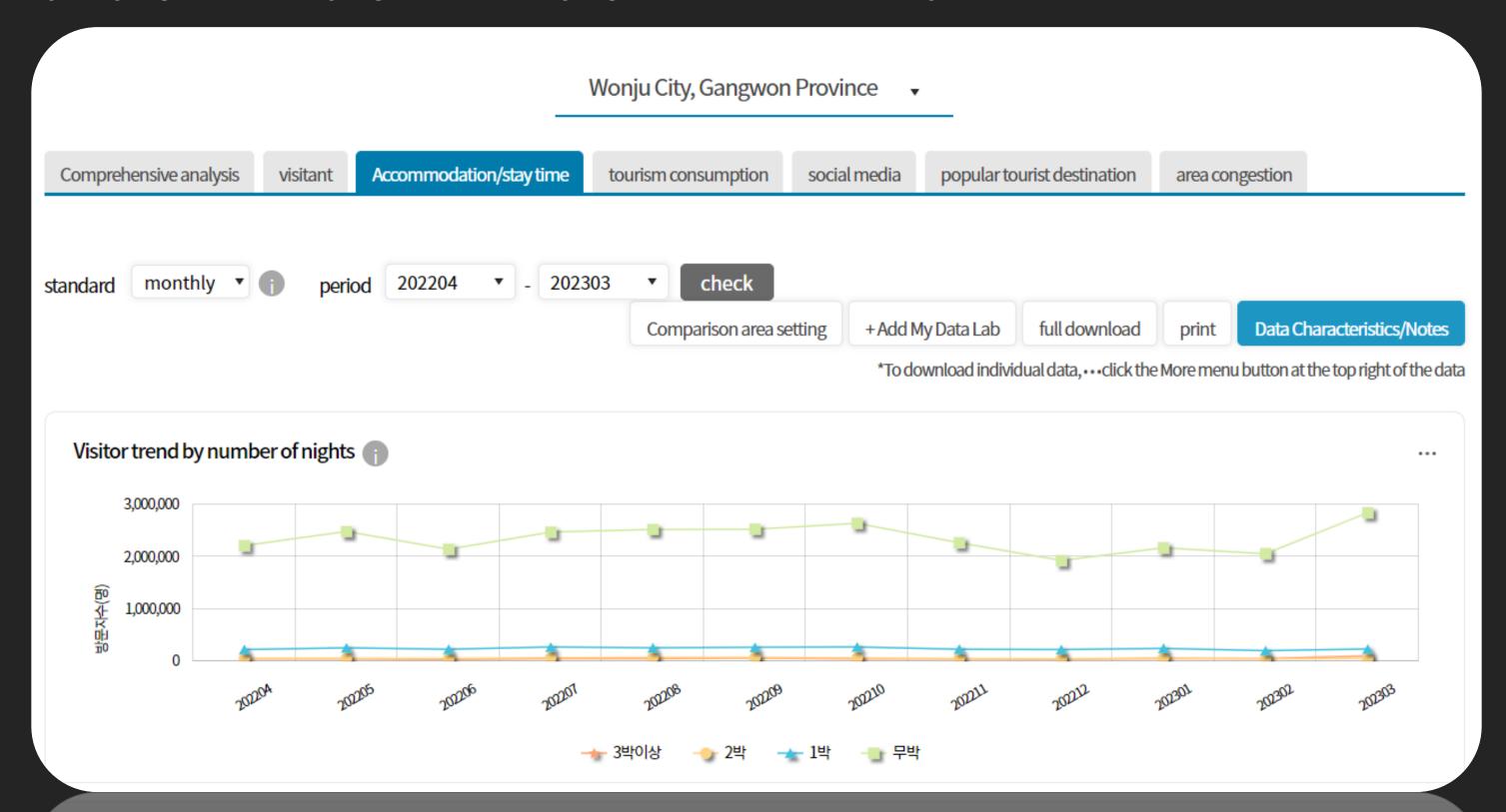






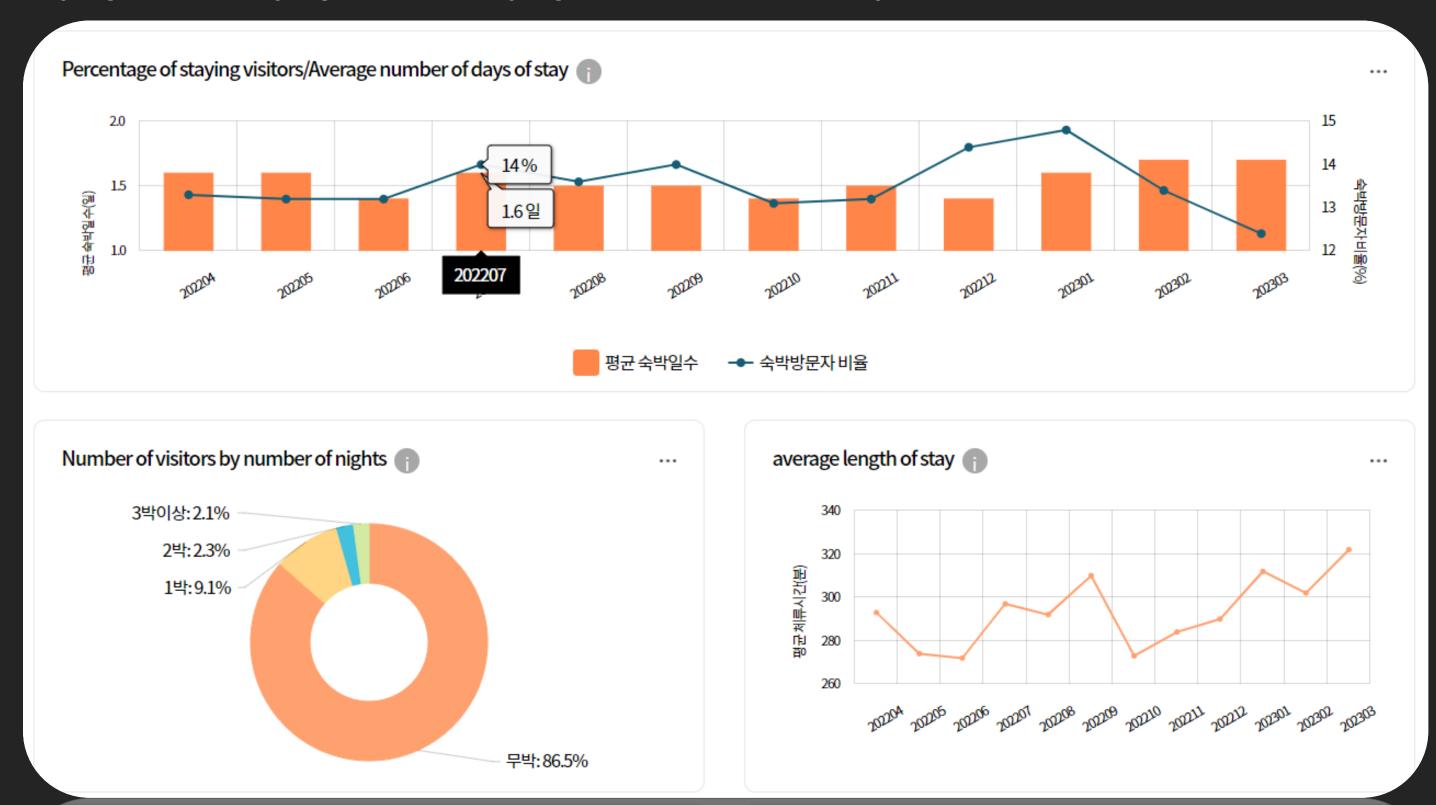
Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Accommodation / Stay time



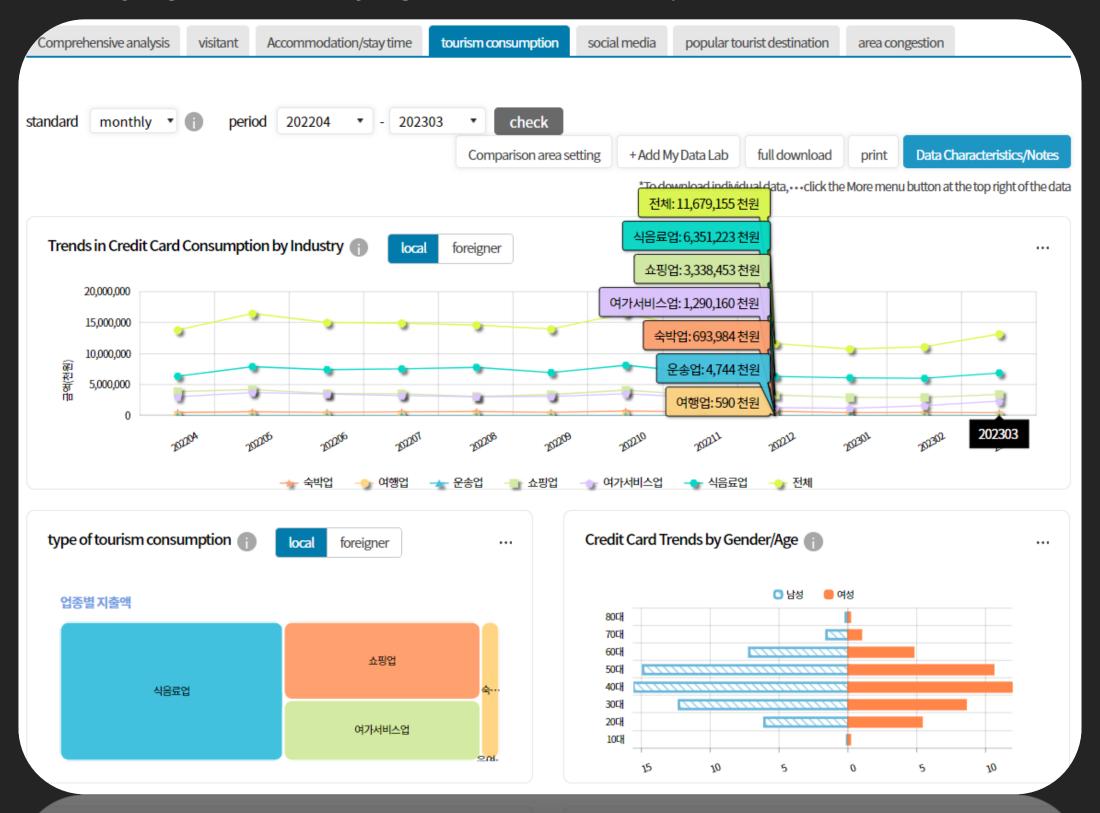
Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Accommodation / Stay time



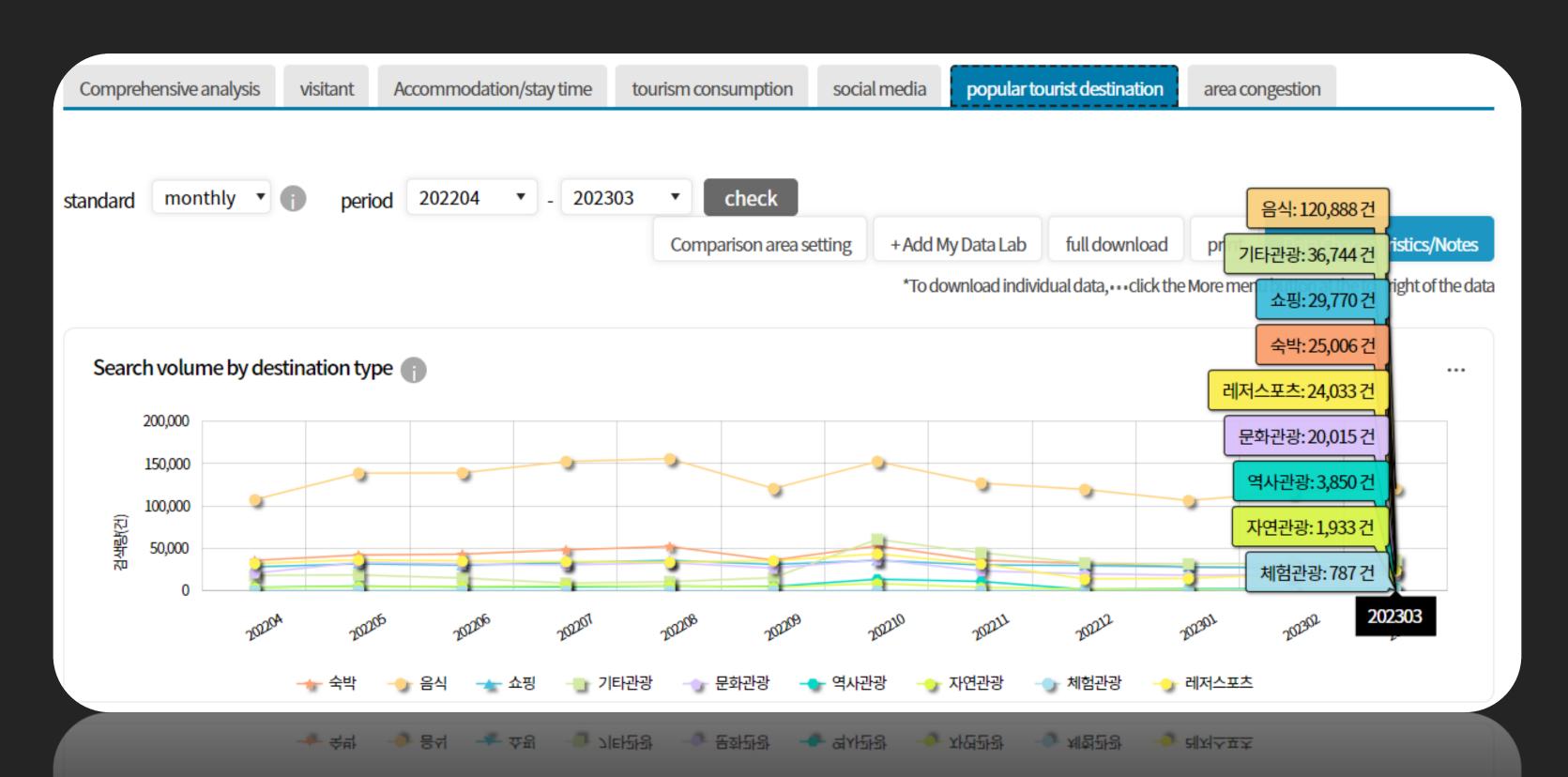
Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Tourism Consumption



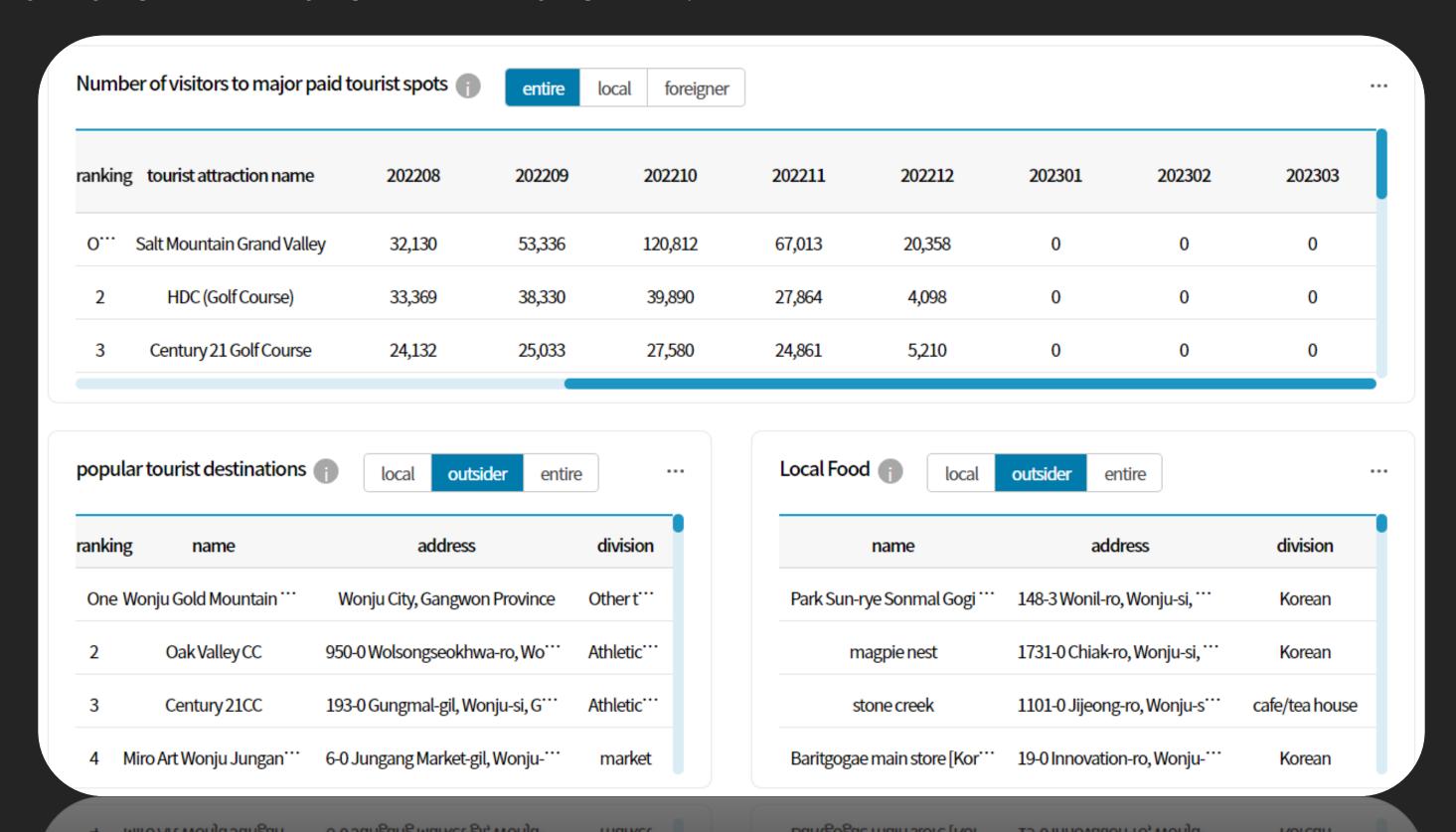
Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Popular tourist destination



Tourism Data Analysis – Domestic Tourism Market Analysis

Analysis by region > Status by region > Tourism by region > Popular tourist destination



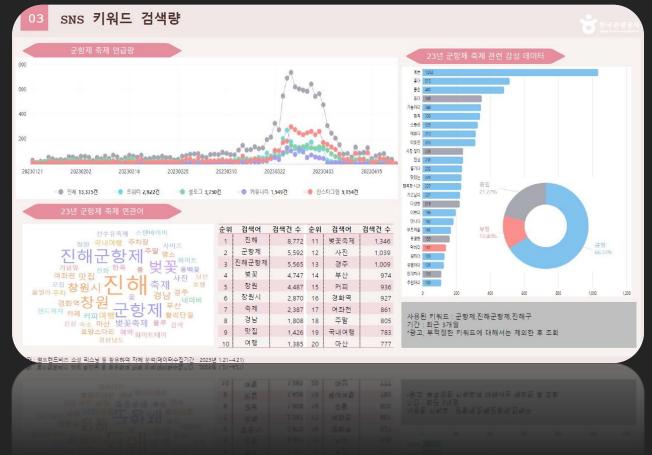
Mobile Navigation SNS

Festival analysis

We provide a Festival Performance Analysis Report using data from Mobile Network Operators, Navigation, and SNS when a local government or RTO requests the report.



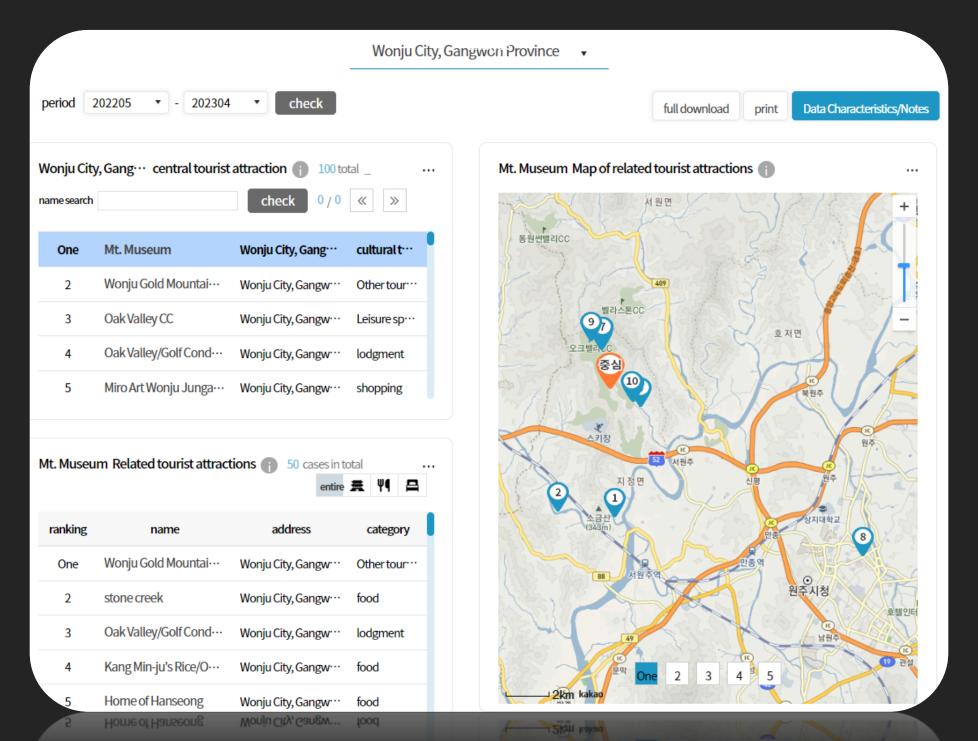




Navigation

Map of Center-related Tourist Spots

- shows the map of the center tourist spot and related tourist spots on the map.
- Useful to make a tour schedule



SNS Mobile Navigation Credit Card

TREND REPORT

MOMENT

2023 Travel Trend "일상의 모든 순간이 여행"

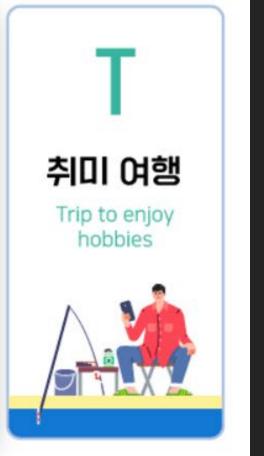












Navigation

Restaurant Chart





Restaurant ranking 10

We will pick and tell you the restaurants that locals often visit and the restaurants that travelers enjoy using big data.

Top 10 locals



Donghwa Garden □

15-0 Chodangsundubu-gil 77beon-gil, ...



2nd market 2nd place

Outsider ranking 10

sea garden □ 23-0 Beorigae-gil, Goseong-gun, Gang...

15-0 Chodangsundubu-gil 77beon-gil,...

Donghwa Garden □



2nd



Thumbne Pojangmacha Main Store 21-0, Gyeonggang-ro 2255beon-gil, Ga...





Cheongcho Sumul Hoe S... □ 12-36, Expo-ro, Sokcho-si, Gangwon-do





stone creek □

1101-0 Jijeong-ro, Wonju-si, Gangwon-...





5th



Terra Rosa Coffee Factor... 🗈 7-0 Hyeoncheon-gil, Gangneung-si, Ga...



The Ambrosia Sonofelice ... 🗈 1153-0 Misiryeongyet-gil, Goseong-gu...

place



Log House Dakgalbi Main ... 🗈 763-0 Sinsaembat-ro, Chuncheon-si, G...

place



Manseok Chicken Gangje... □ 72-0 Cheongchohoban-ro, Sokcho-si, ...

7th



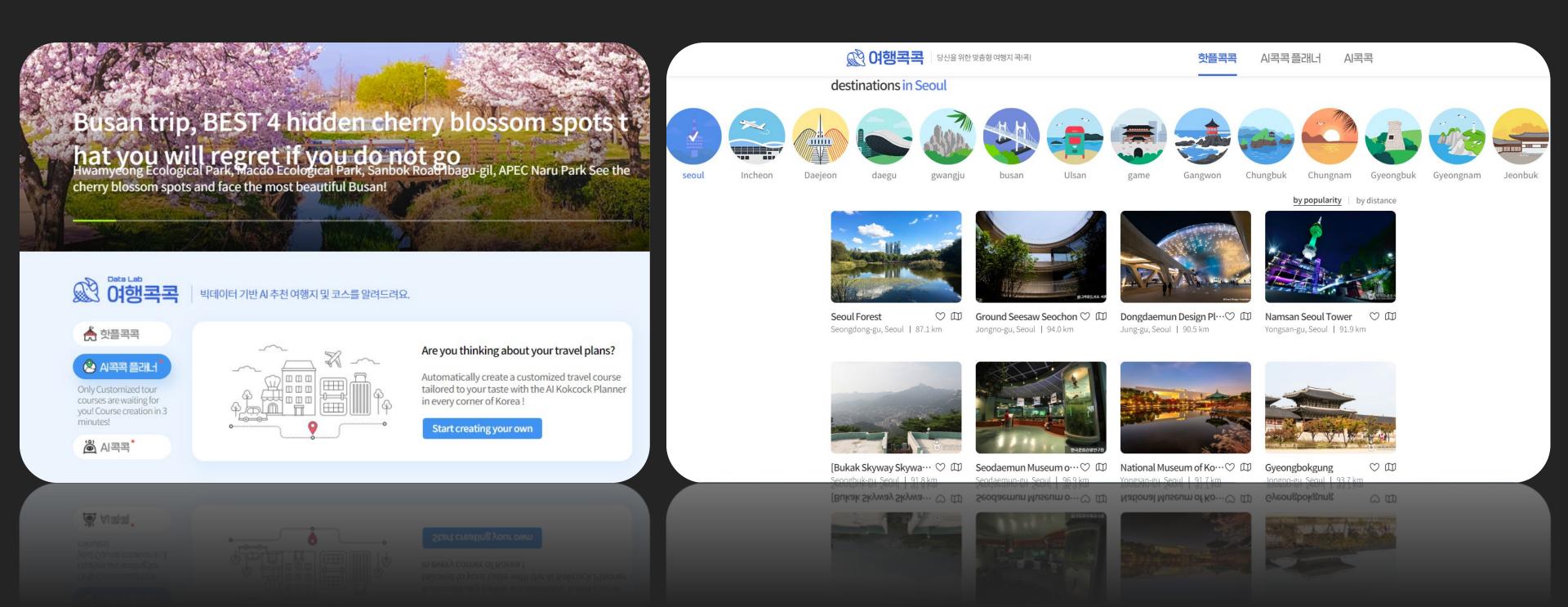
211-0 Wonchanggogae-gil, Chuncheo...



Bongpo Meoguri House 1 223-0 Yeongnanghaean-gil, Sokcho-si, ...

Navigation

Travel Recommendation



Local Government Data Lab Use Case

- Paju City Tourism Department
- Solving traffic congestion and parking problems by analyzing the concentration rate of visitors to tourist attractions and distribution by residence
- Tongil Garden Special Tourists Zone (Heyri + Provence)





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- **5. Smart Tourism City**



5. Smart Tourism City









AR/VR Experience

Gamification

Interactive Elements

Smart Experience

Smart Accessibility



Smart

Mobility





Mobile Tourism Map



Sign Language Guide

Improve accessibility both physically and Digitally

Provide tourists with maximum convenience







Multilingual Service

Smart Order

Smart Convenience

Smart Platform







Integrated Mobile Platform

Public Wi-Fi

Data Opening & Visualization

Collect, share, utilize tourism data





5. Smart Tourism City

Case 1 – Incheon

인천**②**

Vision Time Travel Back to 19th Century Via mobile, 'Incheon Easy'

Area Around Jung-gu open seaport (Approx. 537,000 m²)

Period Sept. 2020 ~ Jul. 2021(11 months)

Budget 7 billion won(3.5 billion of government expense, 3.5 billion of local expense)









Background

Incheon's representative tourist destination,Open Port

Adjacent to China Town, Wolmi-do, Sinpo Market, etc.



4 Key Elements for Smart Tourism
Can be applied to infrastructure
Within Open Port Area

Diversified contents for history & culture

Linkage with smart technology

Presentation expected of leading model for smart tourism innovation



AR Docent

Diversified people revived by AR at Modern-Time Open Port to introduce history & culture

Free Wi-Fi

Free Wi-Fi service within Smart Tourism City

Mobile Service

Provision of vehicles and mobile service optimized for tour schedul



5. Smart Tourism City

Case 2 – Suwon



Vision Time slip with 'Touch Suwon',

1795 Suwon Hwaseong

Area Suwon Hwaseong Special Tourist Zone

(around the palace building)

Period Sept. 2021 ~ Jul. 2022(11 months)

Budget 7 billion won(3.5 billion of government expense, 3.5 billion of local expense)



XR Bus Mobility + history education together, Expanded reality(XR) experience





Backgrounds for creation of Suwon Smart Tourism City

Suwon Hwaseong registered in UNESCO World Cultural Heritage

Limitation to development of physical tourism according to protection & management



Need ways to manage tourist attractions without damaging the Heritages

Strict restrictions on development activities

Occurrence of economic loss and inconvenience compared with new downtown free to develop

Necessity of new development measure & win-win model for urban growth



AR Hwaseong Palace AR realization of appearance of major facilities & inside of unopened ruins

Mobile reservation and payment for Restaurant, café and crafts shop



RA