

Beyond Public Transport: Sejong's Seamless Mobility Ecosystem

Setting a New Standard for Urban Mobility
through S-BRT and AI-driven DRT.

Dongchang Lee, Bus Operations Team Leader
in Sejong City



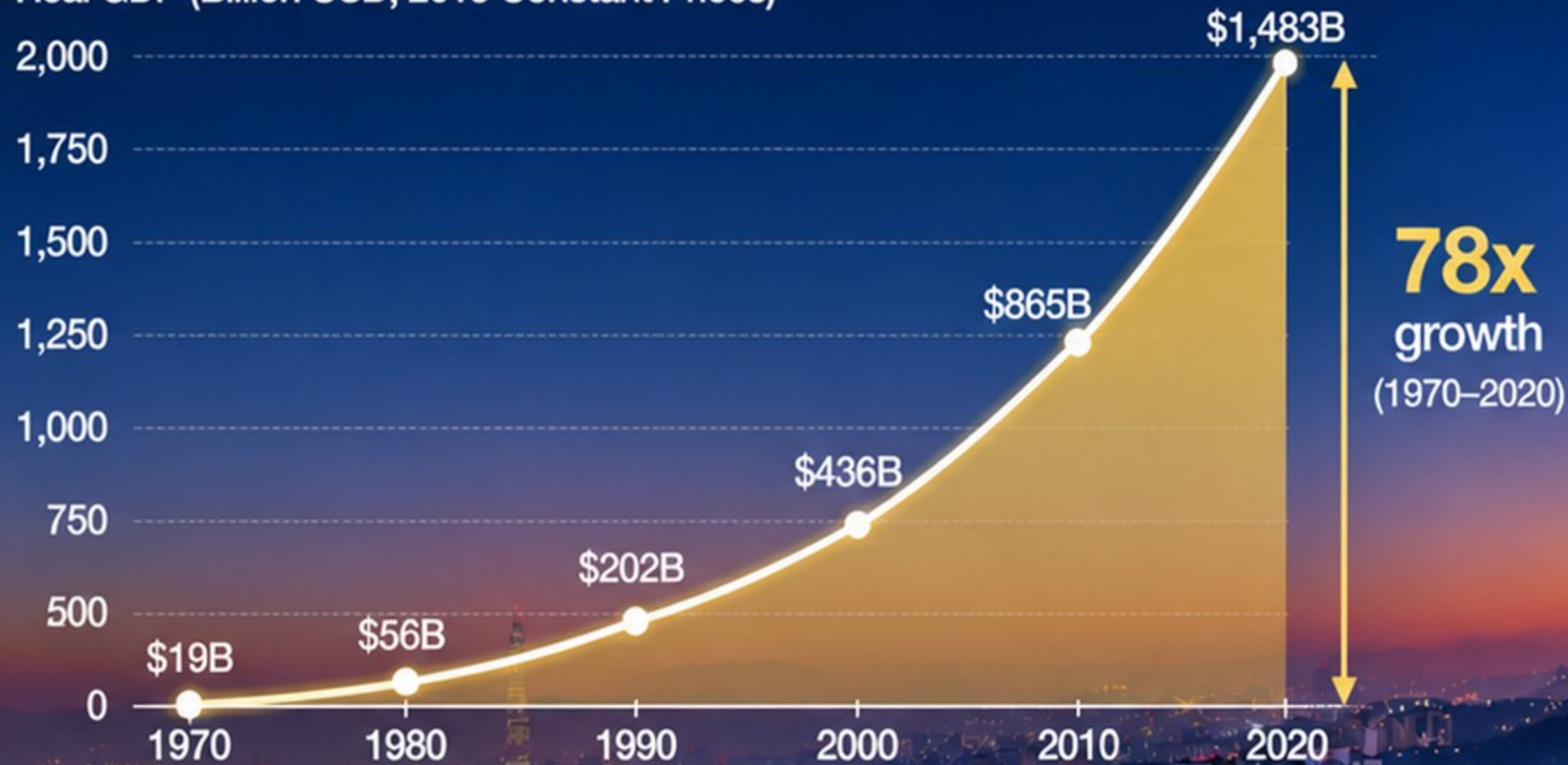
Outline



- 1. Korea's Economic Growth : Opportunities and Challenges**
- 2. Balanced Regional Development and Sejong City**
- 3. Sejong, a Public Transport-Oriented City**
- 4. S-BRT system : The backbone of Sejong's mobility**
- 5. Sejong' DRT : The First and Last mile solution**
- 6. E-ung Pass : Sejong-style MaaS**
- 7. Sejong's Carbon-Neutral Public Transit and Future Mobility Innovation**
- 8. Mobility as a Right: The Role of the Public Sector**

Rapid Economic Growth: Opportunities and Challenges

Real GDP (Billion USD, 2015 Constant Prices)

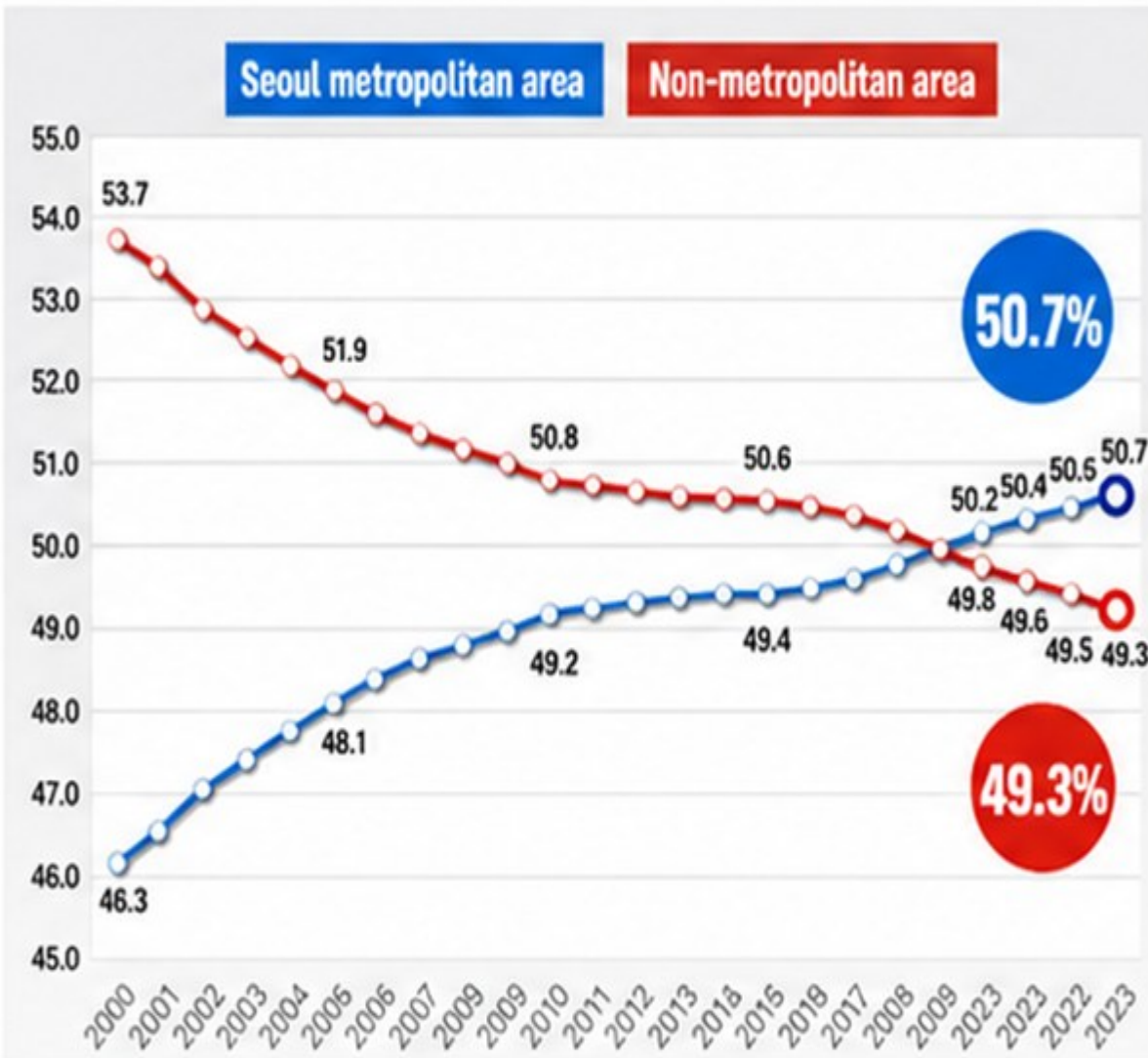


Source: Bank of Korea (BOK)



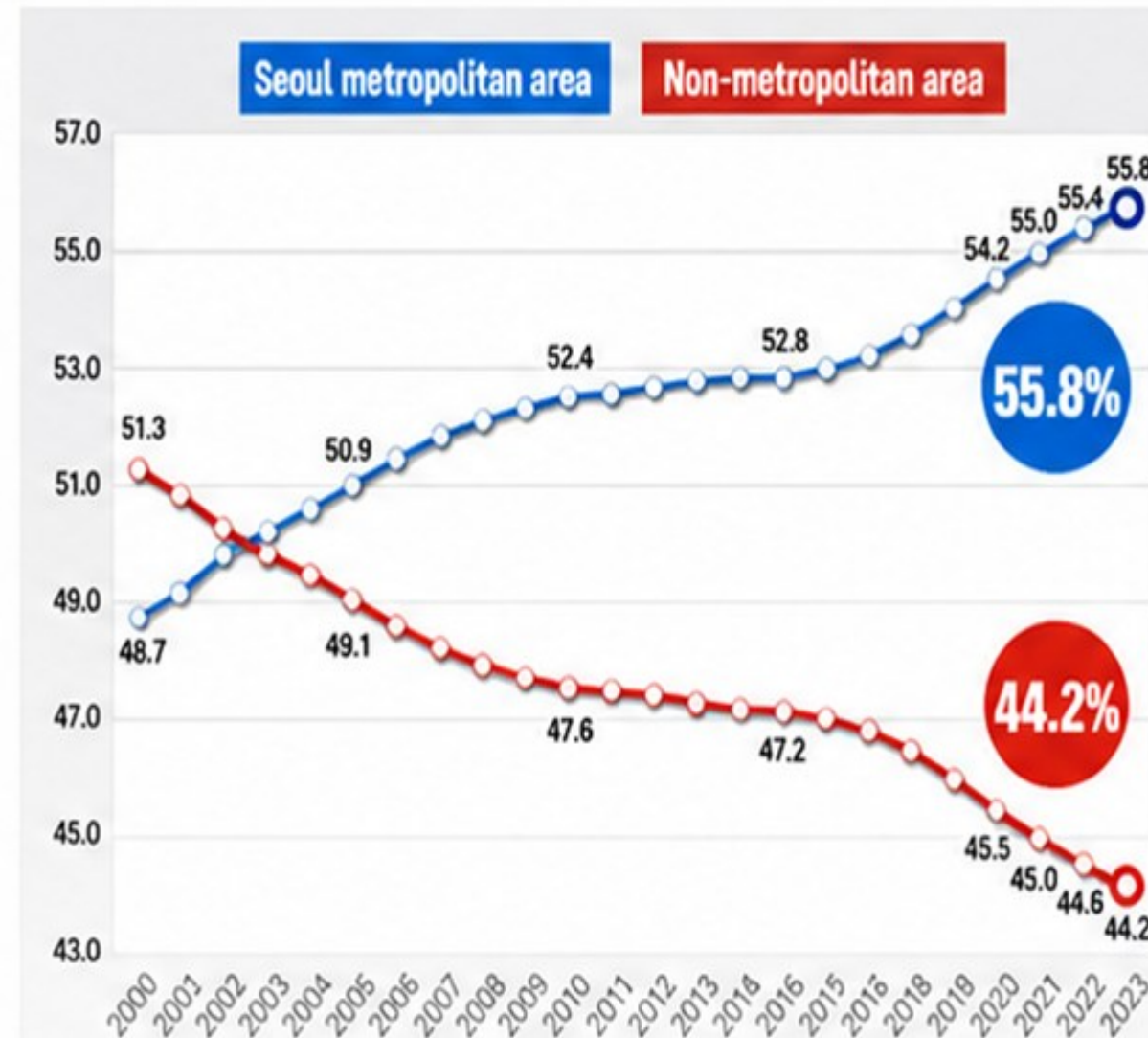
A National Challenge: Regional Imbalance

Population



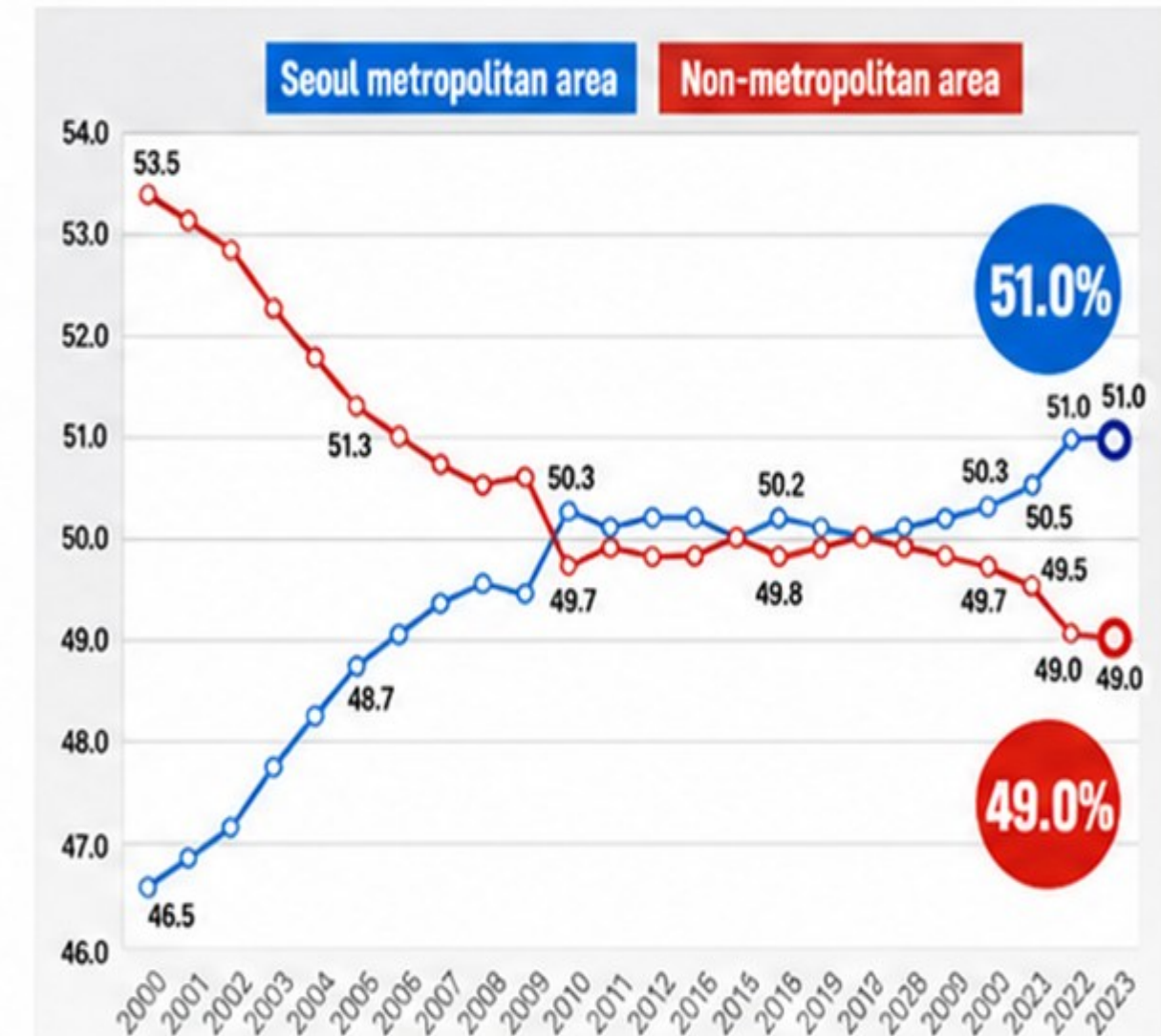
In 2019, the population ratio of the Seoul metropolitan area surpassed that of the non-metropolitan areas for the first time.

Youth population



The continued inflow of young people into the Seoul metropolitan area has led to an increasing proportion of youth residing there.

Employment (Jobs)



Amid widening wage gaps with non-metropolitan areas, the number of employed people in the Seoul metropolitan area continues to rise.

Balanced Development and Sejong City



Sejong City in NUMBERS



2012

45

16

398,536

39.6

2030

Year of Establishment
of Sejong City

Number of central
administrative
and public agencies

Number of national
research
institutions

Population of
Sejong City
(2025)

Average age of
Sejong citizens
(lowest in the nation)

Year of completion as
the administrative
capital



The Paradox of Road Expansion



“ Road expansion induces more traffic ”

Sejong : A Public Transport-Oriented City

6 Specialized Neighborhood Districts

1
Central
Administration

2
Research &
Industry

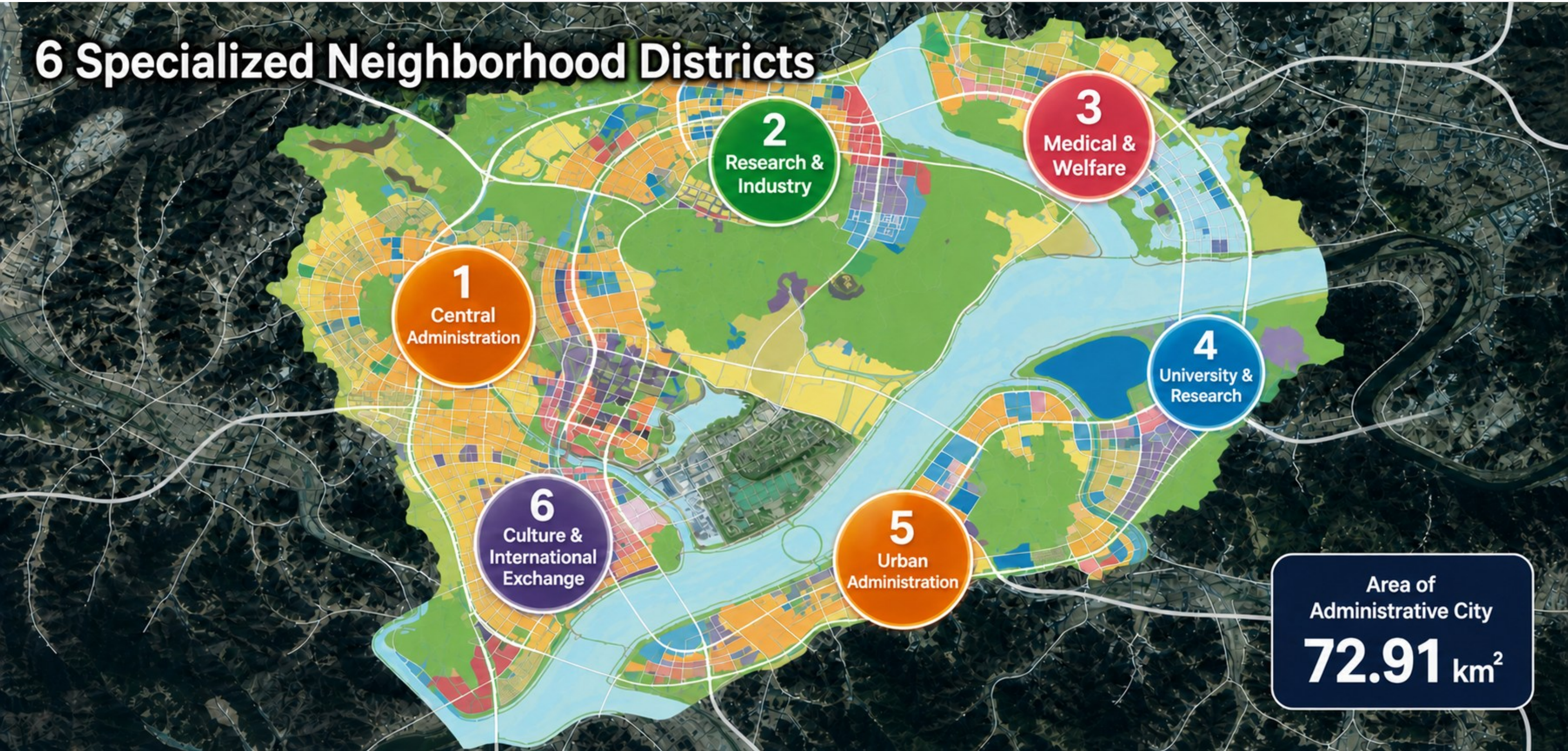
3
Medical &
Welfare

4
University &
Research

5
Urban
Administration

6
Culture &
International
Exchange

Area of
Administrative City
72.91 km²



Sejong : A Public Transport-Oriented City



Core of Sejong's Mobility : Bus-based advanced Public Transit

460
Buses

68
Routes

6
Categorized
Service



BRT-Centered



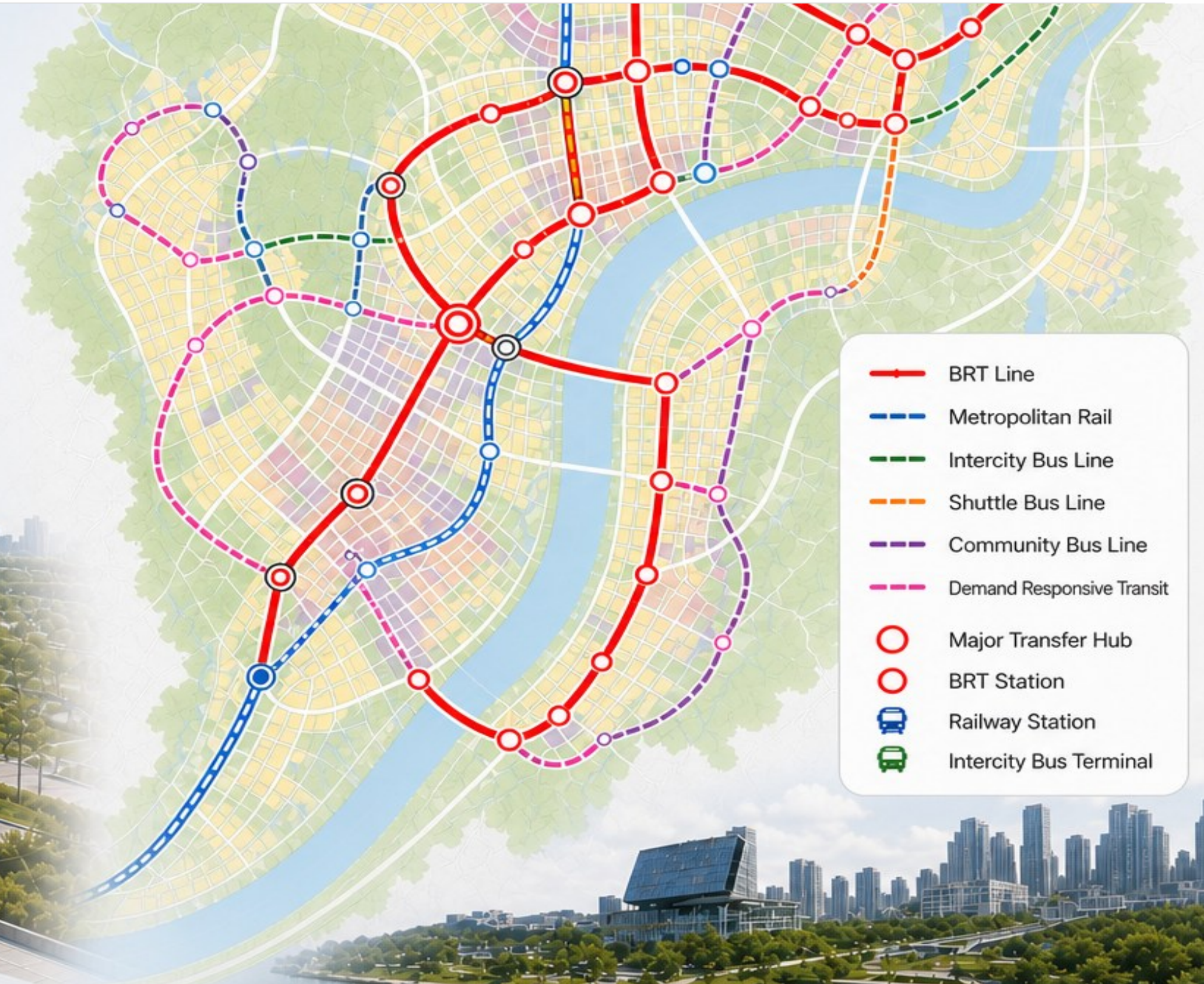
Seamless
Network



Convenient
Transfer



Eco-Friendly
City



KTX-SRT



BRT



Local Bus

SEJONG CITY

BRT + DRT: One Integrated System

Seamless Mobility for Every Citizen



BRT Backbone



High Capacity
Move more people
efficiently



Main Corridor
Fast, reliable, and
citywide



DRT Fine Network



First-Last Mile
Connect every
neighborhood



Door-to-Door
Flexible, on-demand
service

Seamless
Mobility

 BRT Corridor

 BRT Station

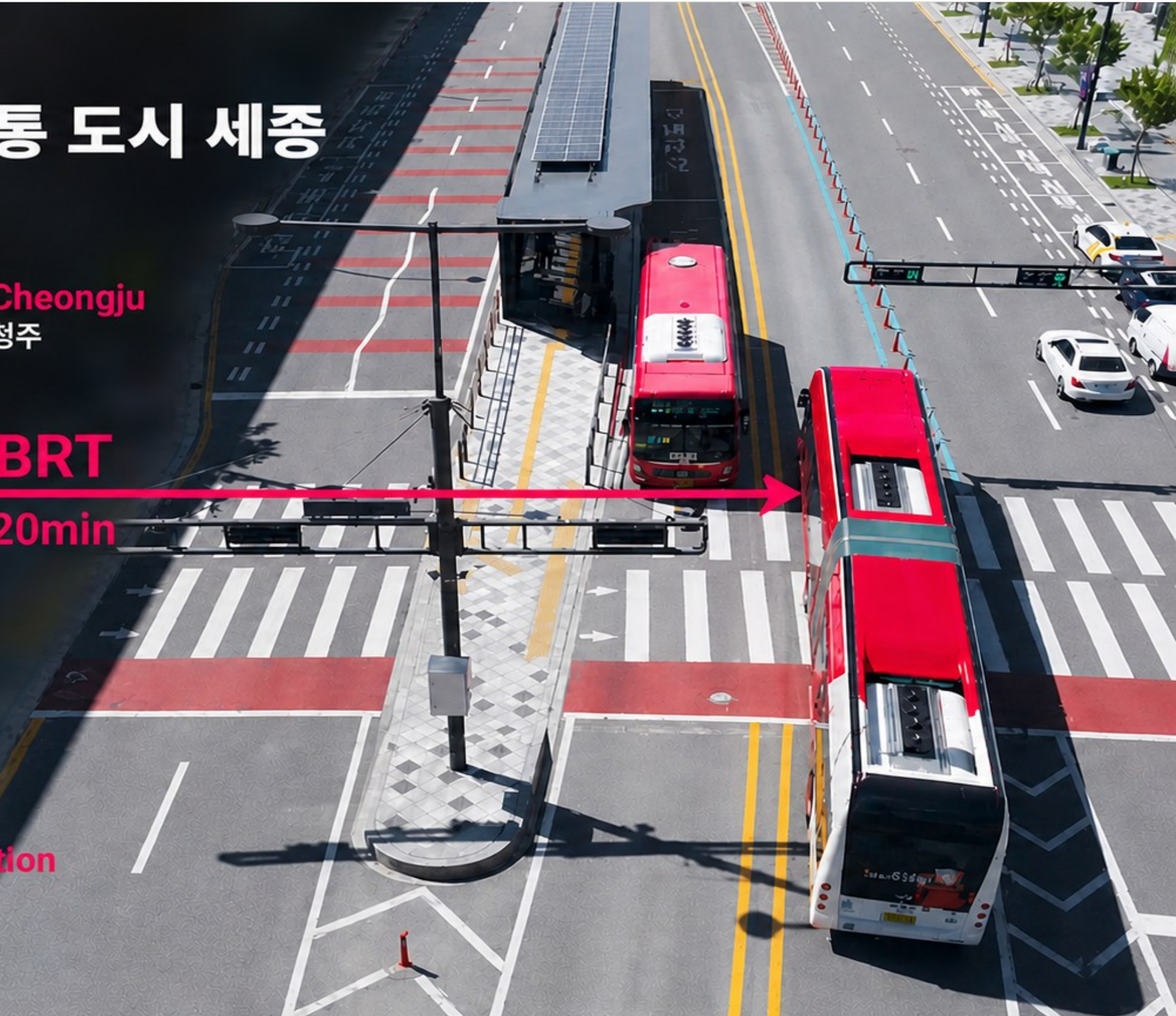
 DRT Route

 DRT Stop / Zone

 Transfer Point

S-BRT : Sejong' Backbone and Surface Subway

BRT 중심으로 설계된 대중교통 도시 세종



Sejong BRT : Korea's Only Premium BRT System

DESIGNED TO THE HIGHEST STANDARD (TYPE 1) BRT

9 CORE COMPONENTS OF TYPE I BRT

1 EXCLUSIVE RIGHT-OF-WAY



2 TRANSIT SIGNAL PRIORITY



3 MEDIAN STATIONS & PLATFORM STOPS



4 LEVEL BOARDING



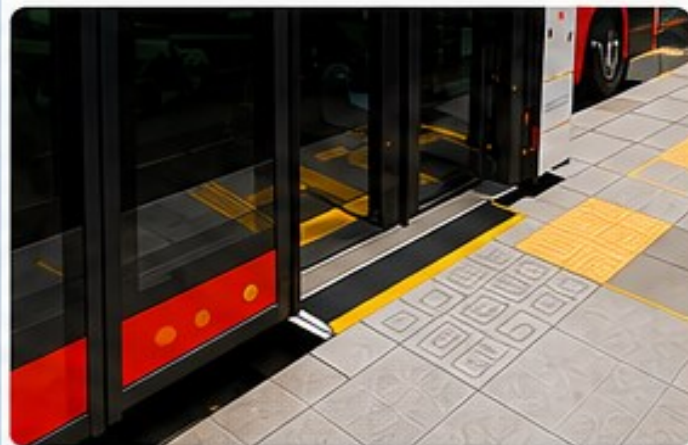
5 OFF-BOARD FARE COLLECTION



6 HIGH-CAPACITY VEHICLES



7 PRECISION DOCKING



8 ITS & CONTROL CENTER



9 BRANDING & SYSTEM IDENTITY



THE VALUE OF SEJONG BRT

- ✓ First city in Korea to introduce Type I BRT (2010)
- ✓ Meets the highest national standard (Type I)
- ✓ Improves public transportation, quality of life, and urban competitiveness
- ✓ Connects the city & shapes the future of mobility

Sejong BRT Outperforms Other Modes in Speed

(Unit: km/h)

City / Category	Sejong	Daejeon	Seoul	Busan	Daegu	Incheon	Gwangju	Ulsan
Passenger Car	32	28.6	22.7	35.7	31.2	25.4	28.5	29.6
City Bus	32	22.1	17.9	24.9	17.6	-	20.1	25.6
BRT	42	-	-	-	-	-	-	-

※ Data as of 2024 / Sejong: Present Standard



Passenger Car

Average speed of passenger cars



City Bus

Average speed of city buses

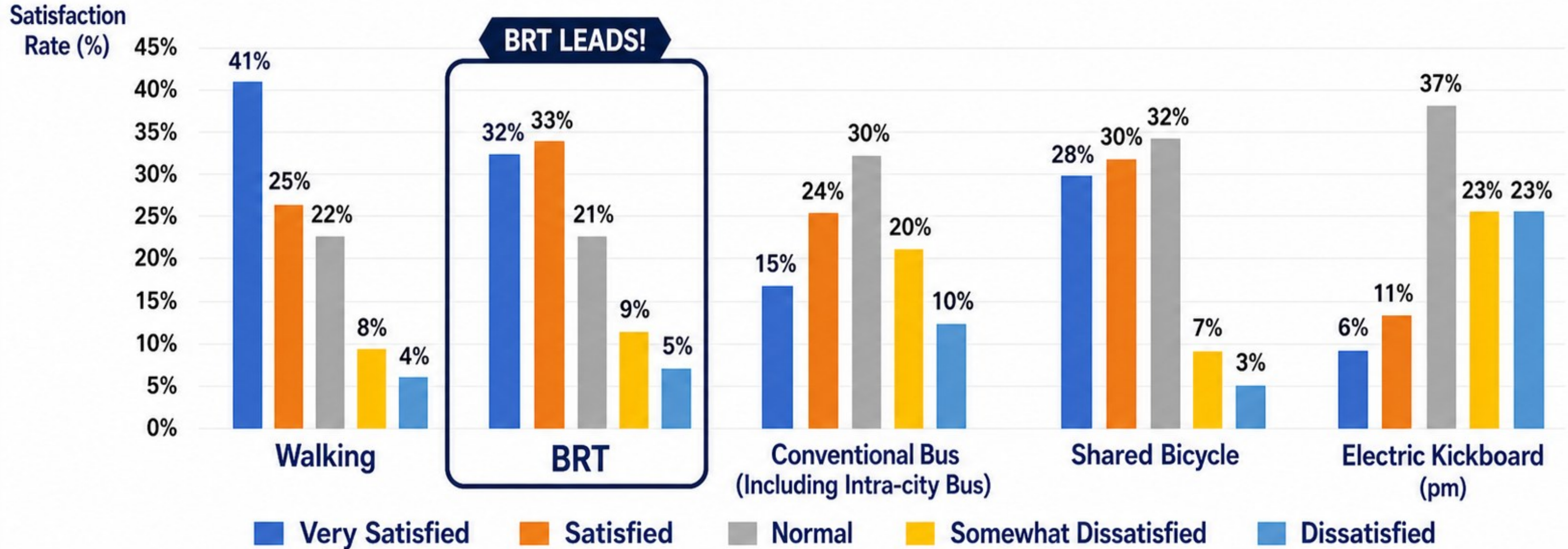


BRT (Bus Rapid Transit)

Average speed of BRT operating in dedicated lanes

Sejong BRT Outperforms Other Modes in Satisfaction

Passenger Satisfaction Comparison by Mode of Transportation



 **BRT DELIVERS THE HIGHEST SATISFACTION!**

- ✓ Highest overall satisfaction (32% Very Satisfied + 33% Satisfied = **65%**)
- ✓ Outperforms all other transport modes across **all satisfaction levels**

- ✓ Meets the **highest standard** of public transportation
- ✓ A **trusted and preferred choice** for more passengers

DRT (Demand Responsive Transit)



I-EUNG BUS

Urban

Duruta

Rural

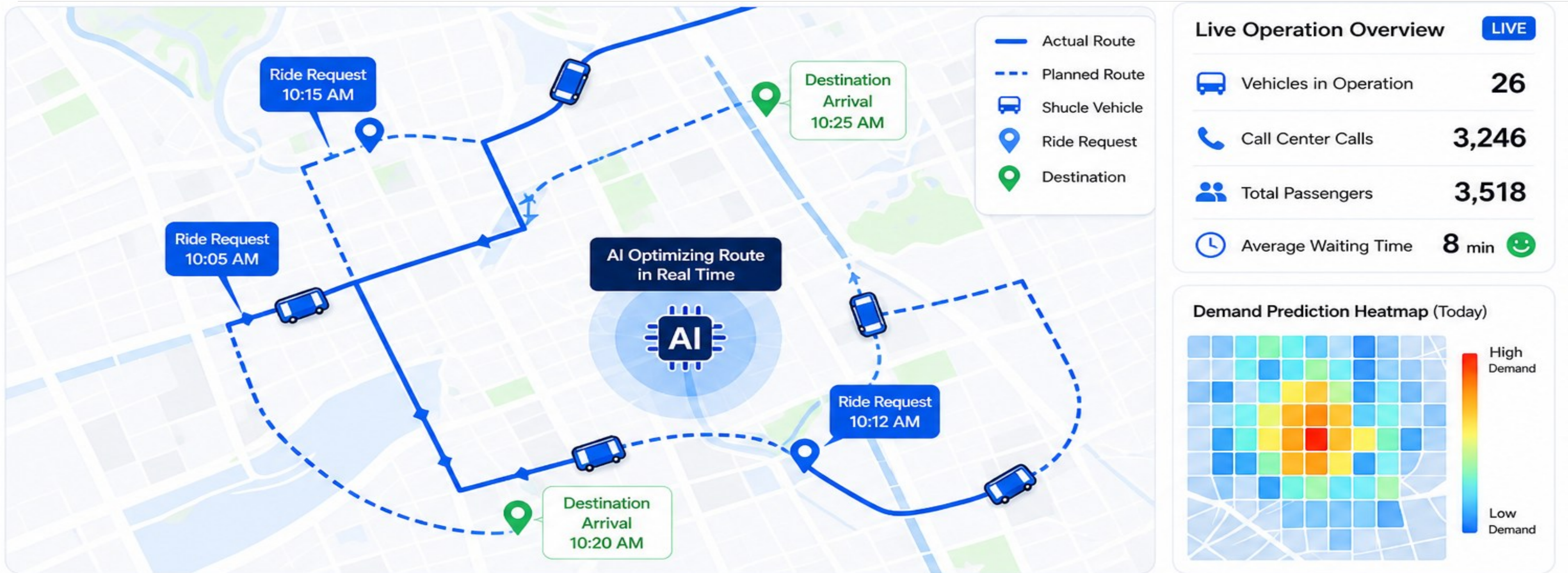
“No one left behind in mobility”



DRT (Demand Responsive Transit)



AI-Powered Demand Responsive Bus Optimal Operation



Duruta, Sejong' Solution for Rural Mobility

Smart Mobility for Every Community

THE CHALLENGE



Low Population in Rural Areas



Population Decline & Aging Society



Inefficient & Costly Service

OUR SOLUTION



DuruTa, the Rural DRT



Anyone Can Ride



On-Demand & Flexible



Connecting Communities



Duruta Operates with Customized Service

Two Service Types + Multiple Booking Options for **Everyone**

1. Route Type



✓ Fixed Route, Fixed Schedule



2. On-Demand Type



✓ On-Demand, Door-to-Door

Multiple Booking Options for Everyone



Smartphone App

✓ Easy Booking



Phone Booking
& Call Bell

✓ Easy for Seniors



**More Than Just a Ride,
A Commitment to Universal Mobility
and Welfare**

Ensuring mobility rights for all citizens in Sejong City



Reduce
Transportation
Disparities



Support
Seniors'
Mobility



Deliver
Universal Welfare
for All

E-eung Pass Complete Sejong-style MaaS



Just **20,000 KRW** a month
for your daily commute!

E-eung Pass
Your Smart Choice
for **Better Mobility**



Less Reliance
on Cars



Reduce
Financial Burden



Ensure Citizens'
Mobility Rights



Sejong-style
MaaS Complete

Sejong : A Leading City in Carbon-Neutral Public Transit

ECO-FRIENDLY BUS FLEET

Current (2024)



Target (2033)



H₂



Carbon-Neutral
Public Transport



Expand Hydrogen
& Electric Buses



Strengthen
Charging
Infrastructure



Achieve
Net Zero








Sejong City Leads the Way in Future Mobility Innovation



-  Autonomous Bus Pilot Leader
-  Level 3 Pilot Since 2022
-  Driverless Level 4 Project Starts Oct. 2027
-  Building Future-Ready Transport System

Autonomous Bus Operations

-  1 Step : 32.2km
-  2 Step : 17.1km
-  3 Step : 12km
-  4 Step : 26km

2029: Presidential Office Relocation
2033: National Assembly Sejong Building

Toward an Administrative Capital for a Population of 600,000



“Elderly villagers’ trips to the local market using Duruta”



SEJONG CITY
SMART MOBILITY



Mobility
is a
basic right
and a
condition for happiness.



Sejong
is a
living laboratory
for future mobility innovation.

Thank you

