

Railroad Development for 'Green Growth' in Korea

2011.12

Jaehyun Park, Ph.D.

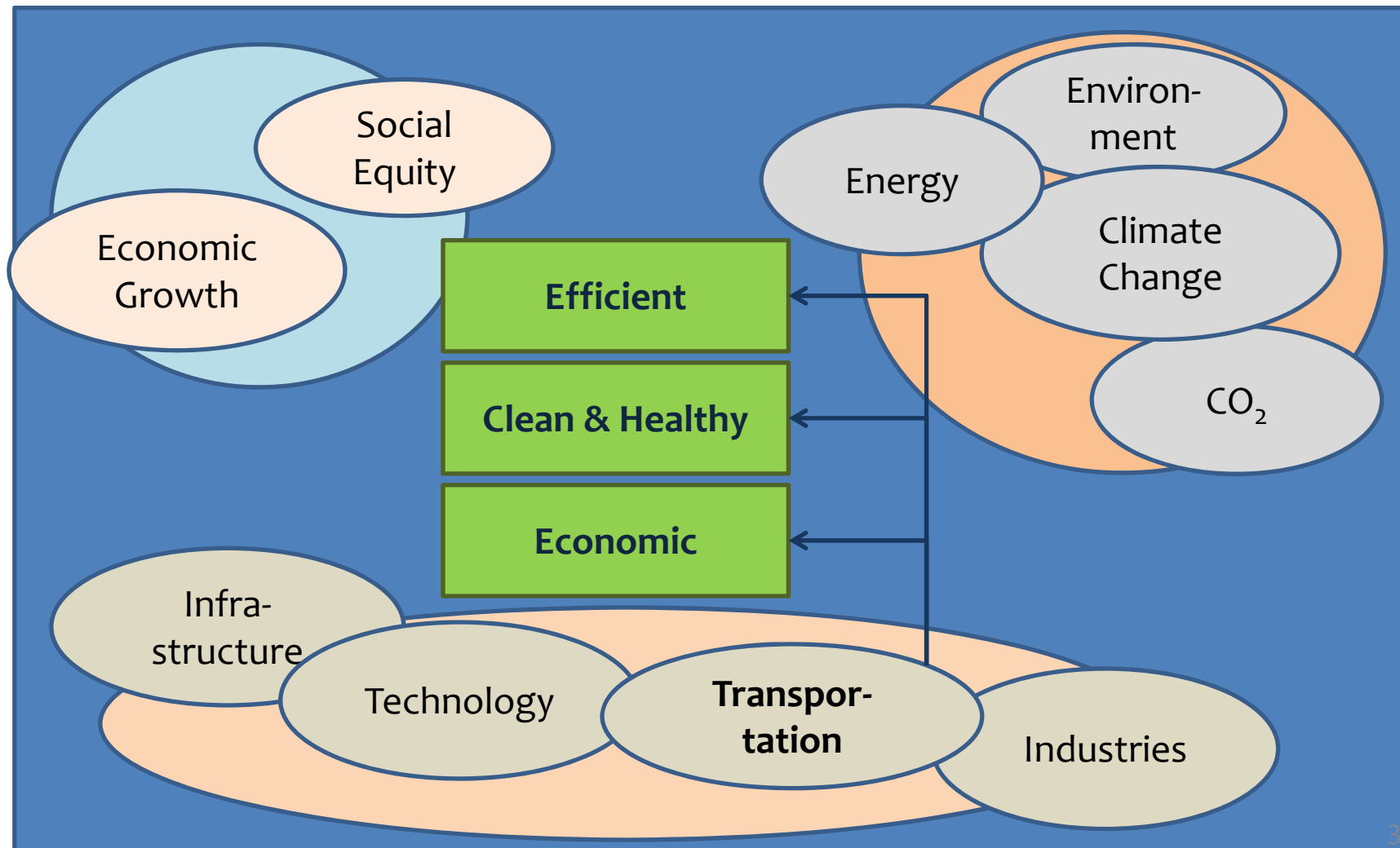


Contents

- Green Growth by Railroad
- Practices in Korea
- Conclusions



Key Words in 'Green Growth'

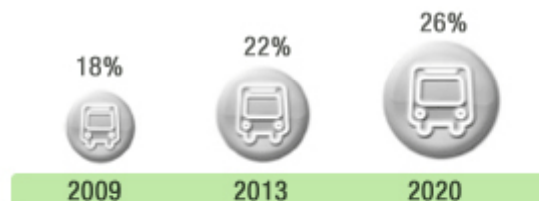


Solution in Transportation

- Green Transportation
 - Bicycle
 - Clean Energy Cars
- Mass Transportation
 - Bus Rapid Transit
 - **Railroad**

Discourage
use of
Passenger cars
that consumes
Fossil Fuels

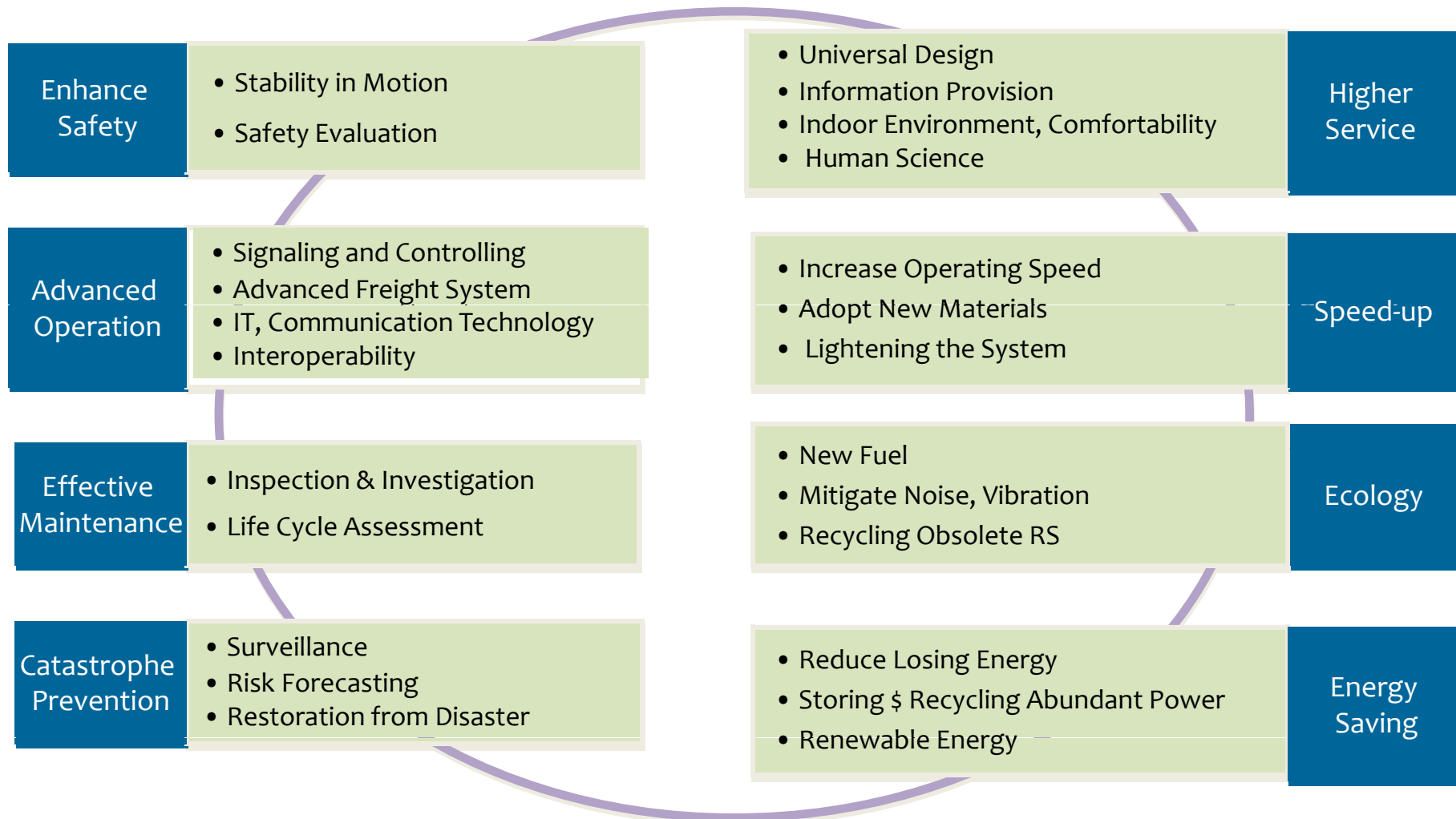
• Share of passengers transporting by rail



• Share of bicycle transportation



Jobs Needed for Railroad



National Railroad Policy

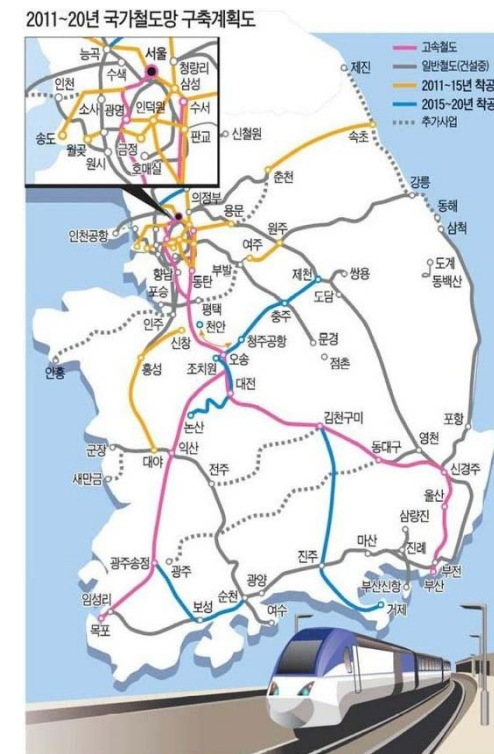
- The 2nd National Rail Network Plan

- A 10 year plan for rail network expansion
- For efficient and systematic approach for national **investment**
- Incorporates with other macro-level plans

※ ‘National Transportation Plan’,
‘Transportation Investment Plan’,
‘Metropolitan Transportation Plan’.

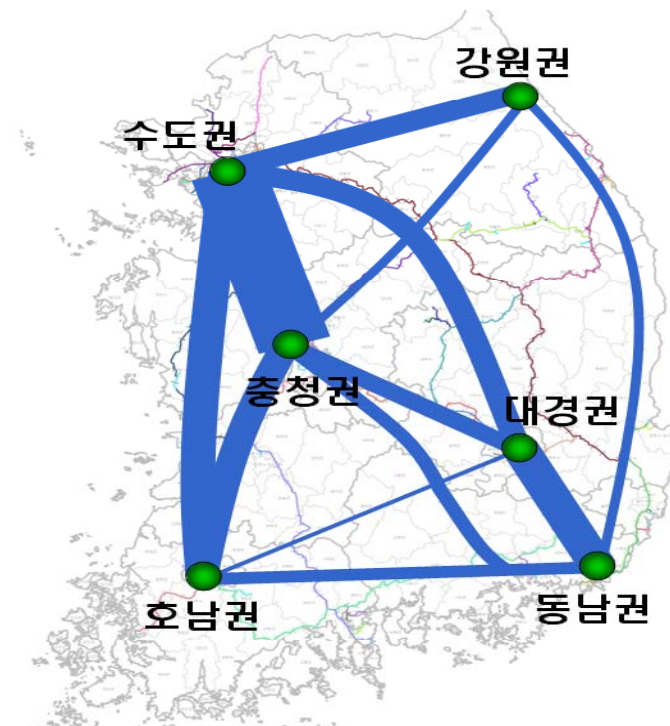
- Which includes:

- Railroad Infra construction plan
- Strategy for Inter-modality
- Financing schema
- Environment Preservation Plan



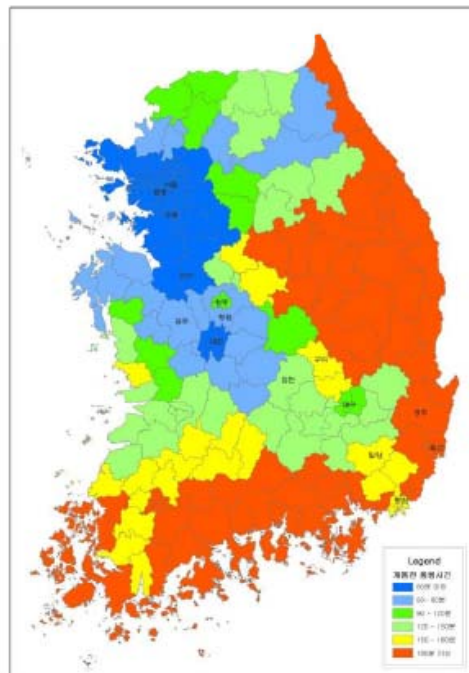
Mobility

- Goal: Connect Between Regional Centers in **90 min.**
- By **High-Speed Rail Network**

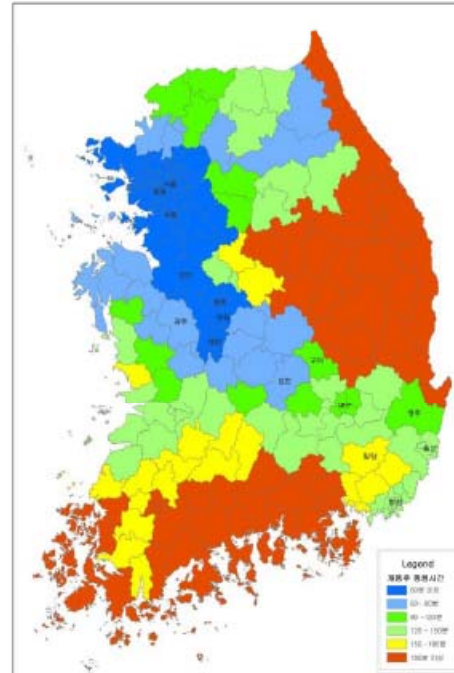


※ Effect of HSR

- The First HSR Line Opened in Seoul-Busan Corridor
- Expansion of **2-hour Service** Coverage (Based on Seoul)
 - Increase of 12.6% of population (4.3 M)
 - Increase of 4.6% of the Land (1,631 km²)

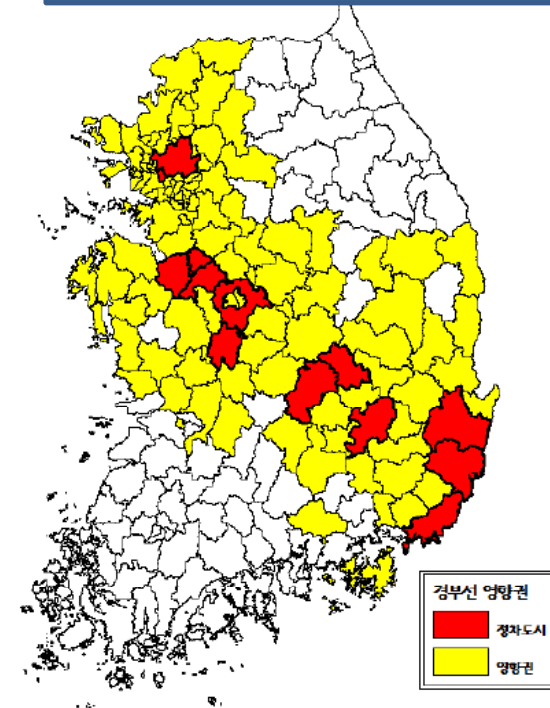


Before



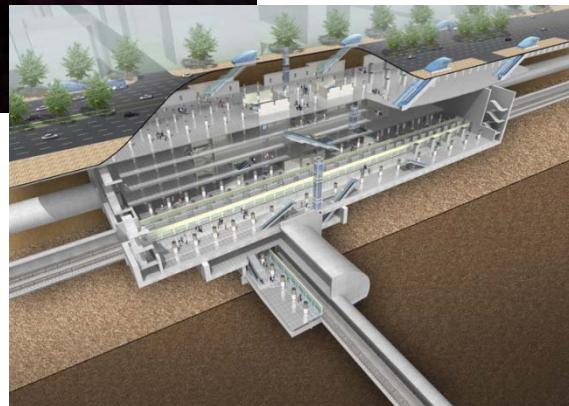
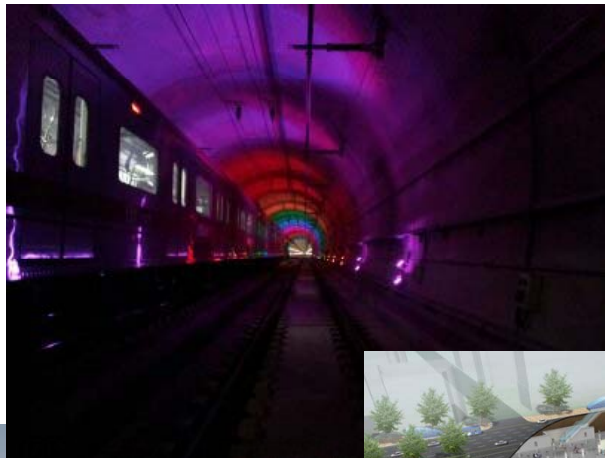
After

86.4% of Population



Accessibility

- Goal: Access to the HSR Station in 30 min. in Cities
- By Express Feeder Rail (GTX) and/or Urban Transit (LRT, BRT..)



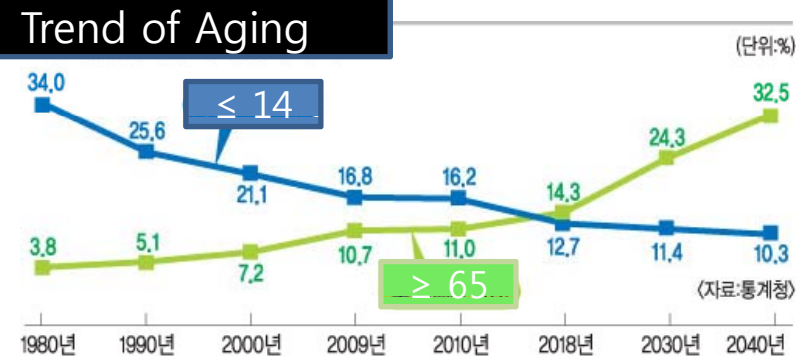
Inter-Modality

- Airport Rail
 - Connects Airport and Seoul CBD in 43 min. ※ 53 min. by Car
 - Provision of Park & Ride
 - Shorten to 30 min. by applying High-Speed Train (planned)



Equity

- The Minority Accounts for 21% of Population
 - The disabled, the elderly, pregnant women, children & infants
- Entering Aging Society



Passenger Service

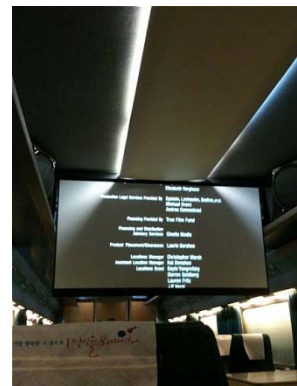
- Information
 - IT-Based Information System
 - Ticketing, Route Scheduling, Maps



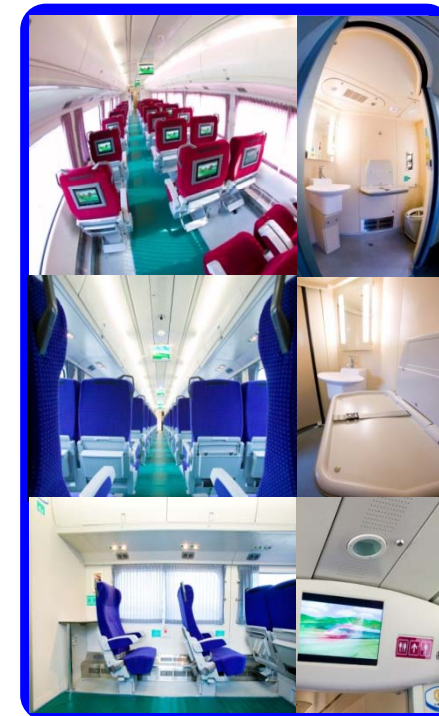
- Internet Access



- Cinema Service



- Comfort Interior



Environments

**Passenger's
Comfort**

Noise & Vibration

Thermal Comfort

Pressure Variation

**Passenger's
Health**

Indoor air pollution

Outdoor air pollution

**Natural
Resources**

Soil Contamination

Greenhouse Gases

Waste & Recycling

Energy Saving



Long Term Investment Plan

- Raise the Railroad Share in SOC Account
from 29.3% to 50% by 2020
- Goal of Modal Share Change
Rail Passenger : 13.6% in 2001 > 15.9% in 2010 > 27.3% in 2020
Rail Freight : 7.6% in 2001 > 8.0% in 2007 > 18.5% in 2020

※ Parallel with the Goal to Cut Down
Transportation GHG Emission
by 33~37% by 2020 BAU



Conclusions

- Railroad draws attention than ever, conceived as a mean to pull the Green Growth.
- It needs faster, convenient, reliable service to attract people, to achieve modal shift.
- A Long-term Strategy will help efficient and systematic railroad system development.



Thank you!