



TOD in Japan

Role of Private Railroad Company: Regional Development through Leveraging Synergy between Transport Network and Urban Development Projects

The 3rd Spatial Planning Platform

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Nishi Nippon Railroad Co. Ltd.

Fukuoka city-region



□ 5.1 million population

□ 5,000 km² : OK for daily commuting / shopping

Fukuoka city-region

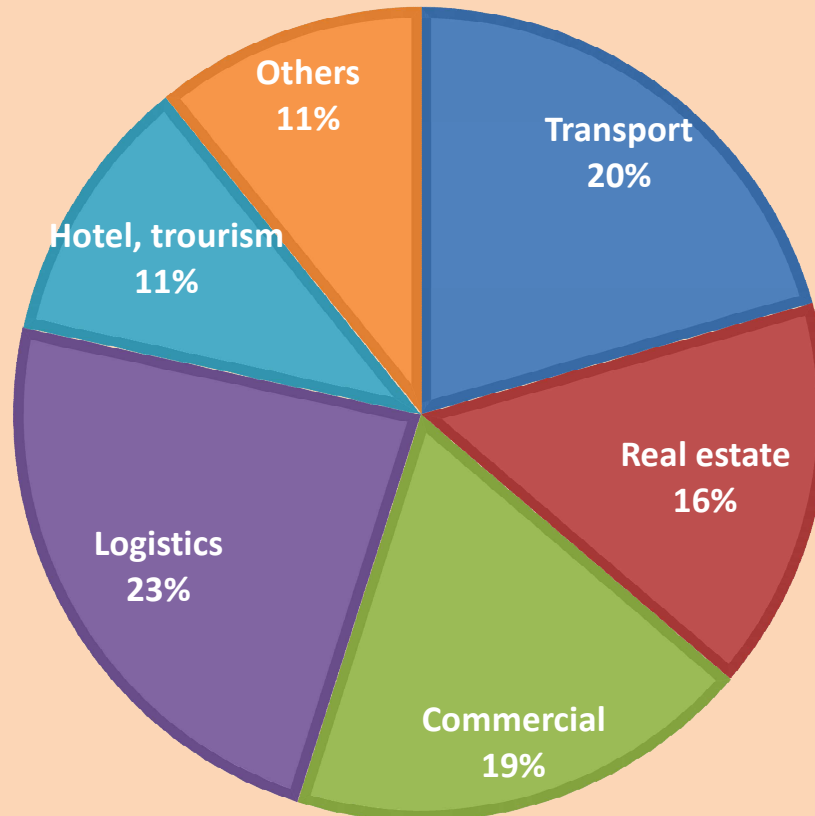


- ❑ Compact & livable: spatially well-distributed urban centers
- ❑ Efficient public transport network, connecting urban centers
- ❑ Long history, political and economic hub of the western Japan
- ❑ Gateway to Asia, open to diversity

NNR in Fukuoka



Capital	JPY 26.2 billion (USD 243.3 million)
Group companies	86 companies and 1 incorporated educational institution (2019)
Consolidated operating revenue (FY 2019)	JPY 389.4 billion (USD 3.622 billion, Mar 2020)



NNR in Fukuoka



Bus



Railways



Real estate for rent



Real estate for sale



Logistics



Leisure Services



Hotel



Supermarket



Leisure Services

NNR in Fukuoka



NNR in Fukuoka



- **Founded in 1908**
- **Urban commuter train (106 km long) + 3,000 buses**
- **1 million passengers daily**
- **Housing, hotels, office, commercial development, amusement facility...**



NNR in Fukuoka



**Synergy
of
public transport network
and urban development**



NNR in Fukuoka



NNR's success
→ **Fukuoka's growth**
→ **NNR's further opportunity**

NNR's DNA to contribute to
Fukuoka's growth from a
long-term point of view



NNR in Fukuoka



Japan-type TOD (Transport Oriented Development)

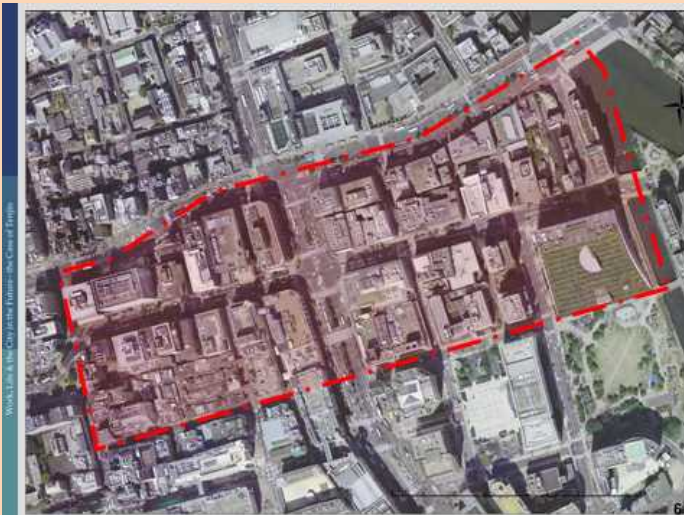


NNR in Fukuoka



Urban regeneration

- △ Time to rebuild old buildings
- △ 7 ha, 100 buildings, 270 stake holders
- NNR facilitates coordinated initiative



Airport operation

- △ Privatization of airport operation since 2019
- NNR leads consortium with other leading companies
- Expand airport efficiency: 21 to 35 million passengers



NNR in Fukuoka



Mobility as a Service

- △ My route: APP to search routes and transport modes, purchase tickets
- △ Piloted in Fukuoka
- △ Collaboration of NNR, TOYOTA, JR Kyushu

On-demand Bus

- △ APP to request a bus ride
- △ AI to organize a route to serve ride requests
- △ Pick up at meeting points
- △ Collaboration of NNR and Mitsubishi Corporation



NNR in overseas



International Logistics

- ❑ Since 1948
 - ✓ Deployed to 115 cities, 28 countries/areas

Housing

- ❑ Vietnam since 2015
 - ✓ 7 projects
 - ✓ 17,000 units (condominiums, houses)
- ❑ Indonesia since 2015
 - ✓ 4 projects
 - ✓ 3,300 units (condominiums, houses)
- ❑ Thailand to be launched in 2022
 - ✓ 1 project, 4200 units (condominiums)
- ❑ USA since 2018
 - ✓ 3 housing projects, 1,000 units for rent
 - ✓ 1 warehouse

Hotel

- ❑ Korea, Thailand, Taiwan
 - ✓ Seoul, Pusan, Bangkok, Taipei



Mizuki Park , Ho Chi Minh City, Vietnam
USD 382 million, 26 ha,
4,840 units, 15,860 residents

NNR in overseas

Waterpoint project in Vietnam

- ❑ 3,000 housing plots, school, clinic, bus terminal, supermarket, etc.
- ❑ 165 ha in Ben Luc, Long An Province, 45 minutes drive from HCMC
- ❑ Rapid shuttle-bus service to be provided
- ❑ USD 287 million, launched in 2019



NNR in overseas

JICA technical cooperation for upgrading public transport system of Hanoi, Vietnam

- △ Public transport systems being developed/strengthened : urban railroads, BRT, conventional bus network expansion
- Tech. cooperation: different IC card systems ⇒ unified IC card system to serve different transport systems with one card
- Capacity building: driving skills, passenger management skills, training of trainers, bus-operation schedule management



History of Japan's TOD and urbanization



- 1st wave of urbanization: 1920 – 1935
 - Japan's industrialization, demand for cargo transport, pre-motorization
 - ⇒ Massive wave of railroad construction throughout Japan
- 1923 Great Kanto Earthquake in Tokyo, 100,000 death
 - Demand for safer residential area
 - ⇒ Housing development alongside of existing railroads
- 2nd wave: 1955 - 1970
 - Japan's high-pace economic growth; huge demand for housing in large cities
 - ⇒ Construction of "new towns" and railroad extension through strategic PPP
- 3rd wave: 1980 – 1995
 - Shift of economy: greater demand for office / commercial spaces
 - ⇒ Promotion of sub-centers near railroad terminals through redevelopment

Construction of railroad + housing dev. in outskirts + commercial dev. at the terminal

- Growing demand for high-standard residence in 1920s;
- Initiated by Hankyu Railroad in Osaka;
- To support then-emerging new urban work / life style

- Shorter-term revenue through real estate / commercial dev.;
- Mitigate long-term large investment in railroad business;
- Built-in land value capturing mechanism

- New business model replicated by other private railroad companies incl. NNR

Construction of “New Towns” and strengthening of railroads



□ Huge demand for housing during Japan’s high-pace economic growth in 1960s in large cities

□ Construction of new towns in outskirts of city center
+ strengthening / expansion of existing railroads
+ various PPP (incl. appropriate land value capturing)

- Japan Housing Corporation (now UR) to provide housing
- Railroad companies to expand railroads

□ Negative impact of urban sprawl; and challenge of “shrinking” cities

Urban renovation and railroad's roles



1. Large-scale urban redevelopment near terminal stations

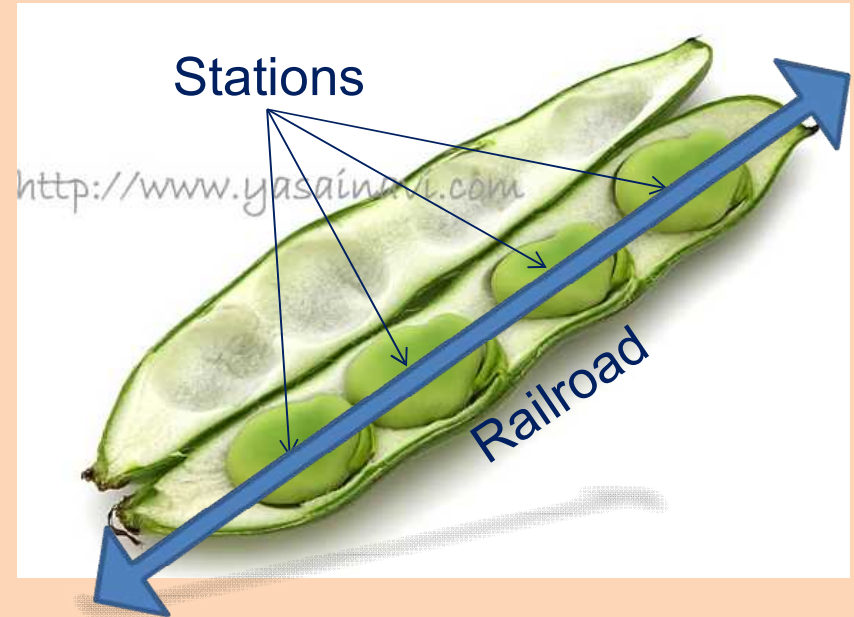
- Shift of economy: greater demand for office, commercial spaces → promotion of sub-centers within large cities
- Privatization of Japan National Railroad in 1987 → unlocking large stock of low-use land → large-scale urban renovation

2. Recent trends

- Integration of railroad station and redevelopment of neighboring urban area
- Uplifting of urban railroad → reconnecting once-divided urban area for revitalization

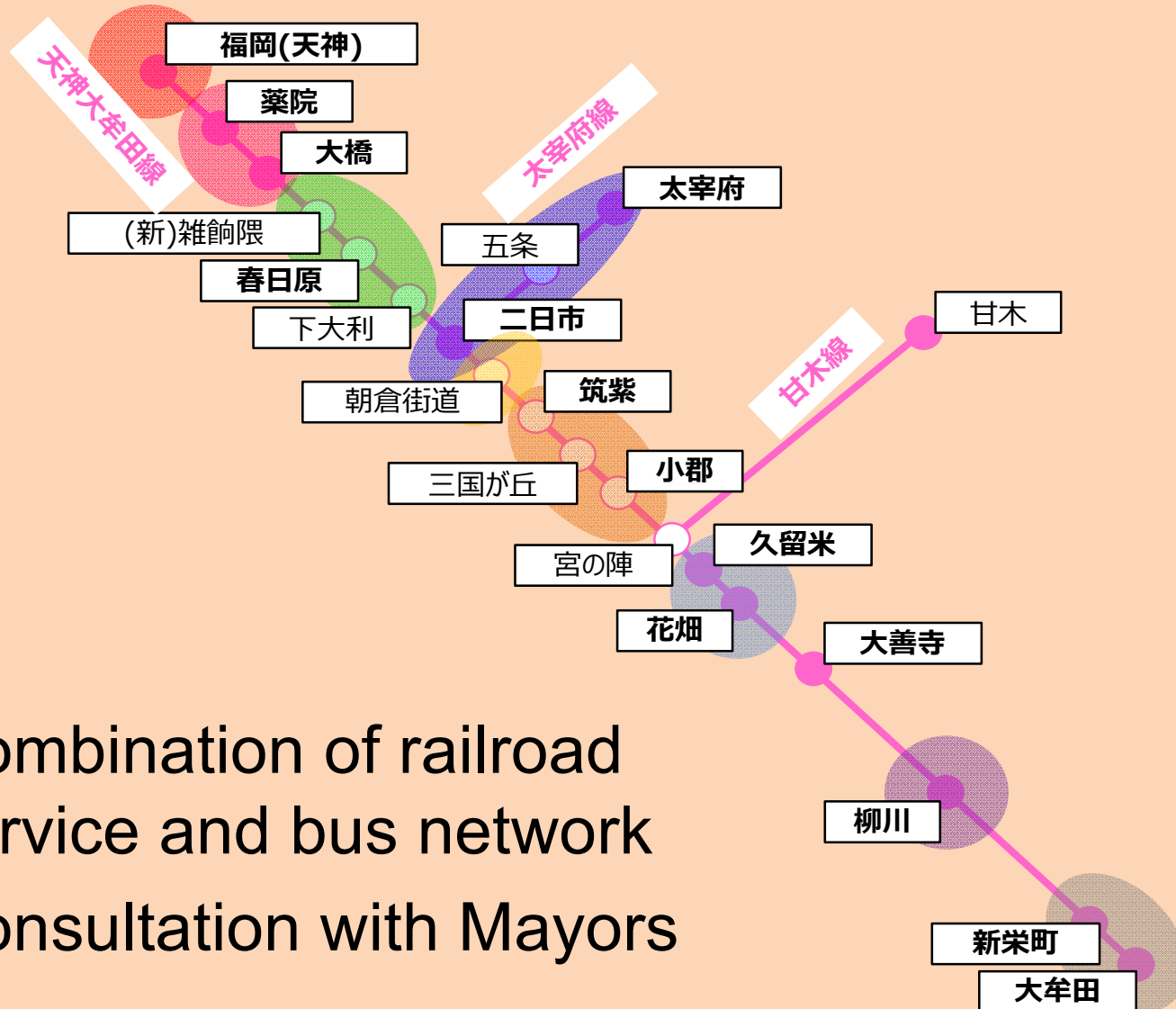
Bean-pod area-management

- Integration of series of stations and nearby areas as one area:
“Bean Pod” concept



- Upgrading the brand of such an area which people are proud of
- Railroad company playing pivotal role in consultation with numerous local stakeholders

Area management along the Omuta line by NNR



- Combination of railroad service and bus network
- Consultation with Mayors

Conclusion



□ Japan-type TOD

- ✓ *Synergy of public transport network operation and urban development initiatives in the area*
- ✓ *Role of private railroad companies in regional spatial / territorial development*

□ Possibility in affordable housing provision

- ✓ *Japan-type TOD + land value capturing + affordable housing*
- ✓ *Government to create suitable environment for private transport company to operate effectively*
- ✓ *Different socio-economic situation → adjustment required in accordance with different context*

Reference

TOD Practice in Japan

Tokyo – A Global City Created by Railways

Edited and written by Takashi YAJIMA and Hitoshi IEDA, et. al., 2014

- ✓ *Historical overview*
- ✓ *Various types of Japan's TOD practices in urban development*



Thank you

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