Japan Railways

Successful Financing Models

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Financial scheme for the construction of new line in Japan

National Government, Local Governments and Railway companies share the cost of the construction of new railway line in Japan.

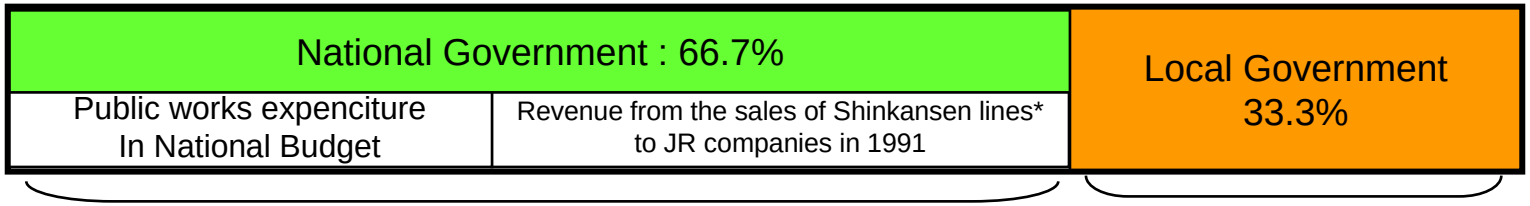
Construction of new line gives various impacts on not only the convenience of transportation, but also economic growth of the area along the line.

Local Governments receive benefit from the new line.
It is expected that tax revenues increase as a result of revitalization of investment, increase of consumption, increase of population in the area along the line.

The simultaneous implementation of regional development and the new line construction ensures the success of the new line as well as regional vitalization.

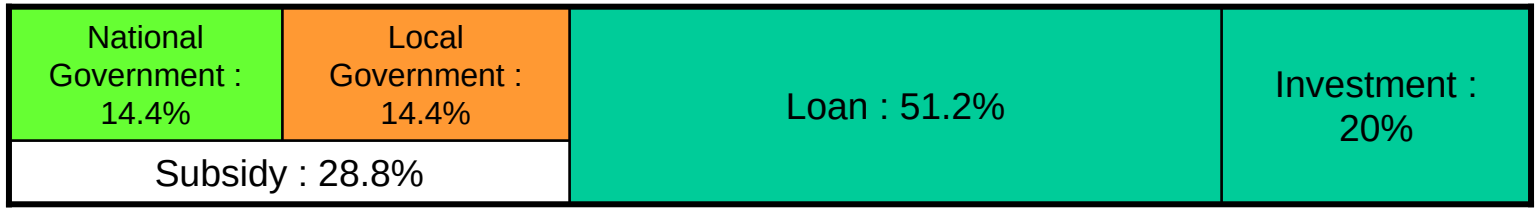
Examples of Local governments sharing the cost of the new line construction

(1) Construction of new Shinkansen line



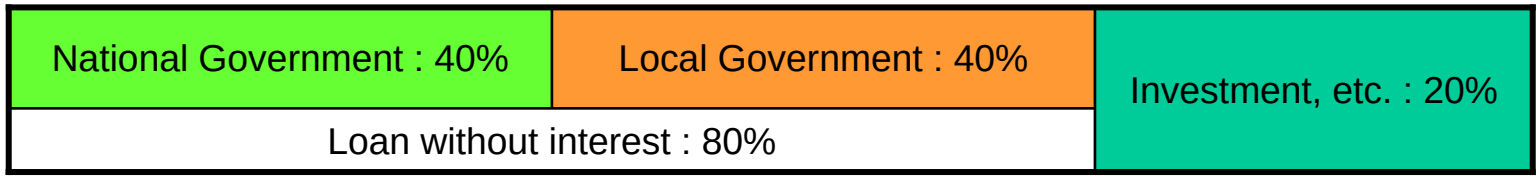
* Tokaido Shinkansen, Sanyo Shinkansen,
Tohoku Shinkansen (Tokyo – Morioka), Joetsu Shinkansen

(2) Construction of airport access line, etc.

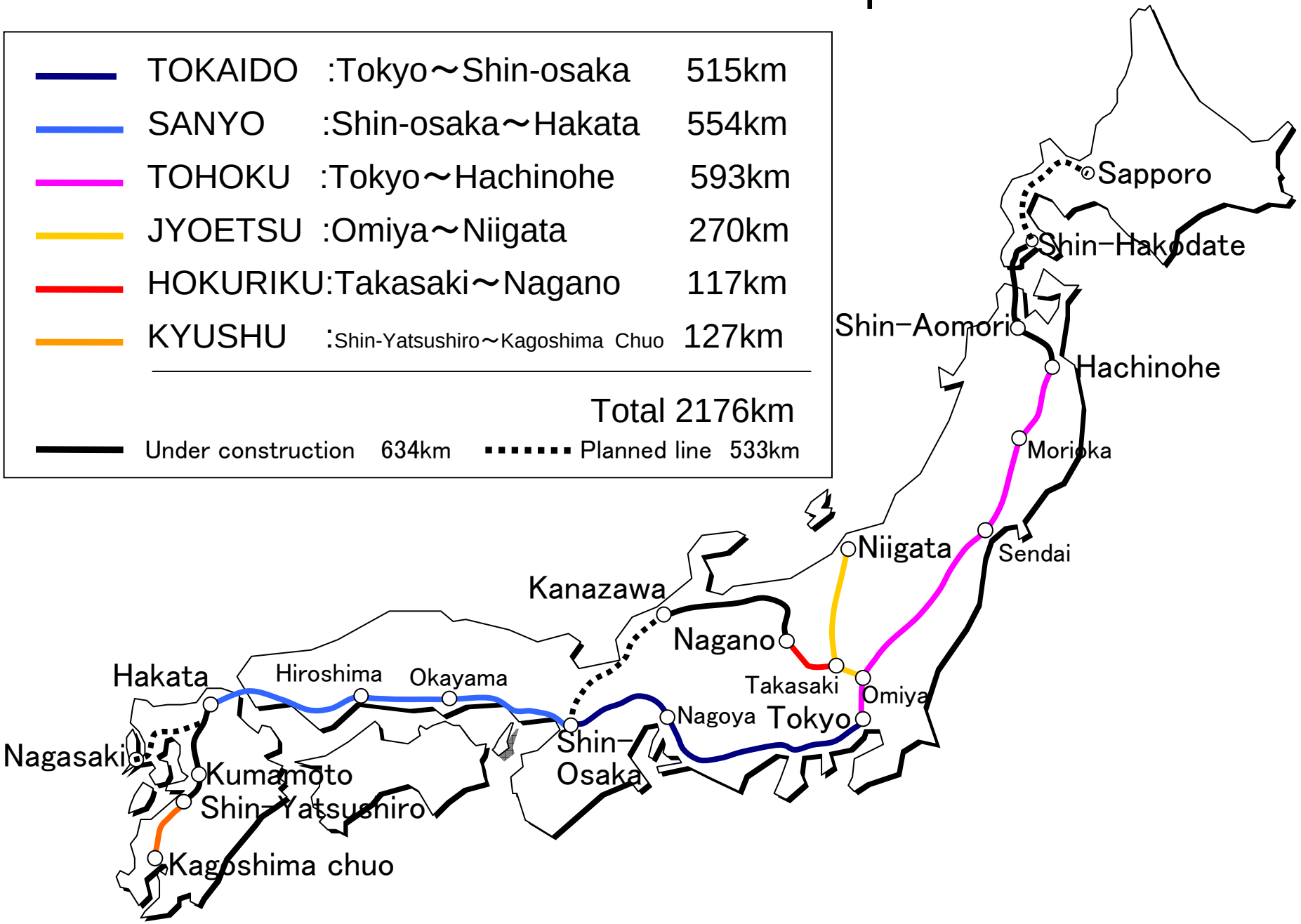


(3) Financial Scheme of Tsukuba Express

Total Cost : 940 billion yen (opened in August, 2005)



Shinkansen route map

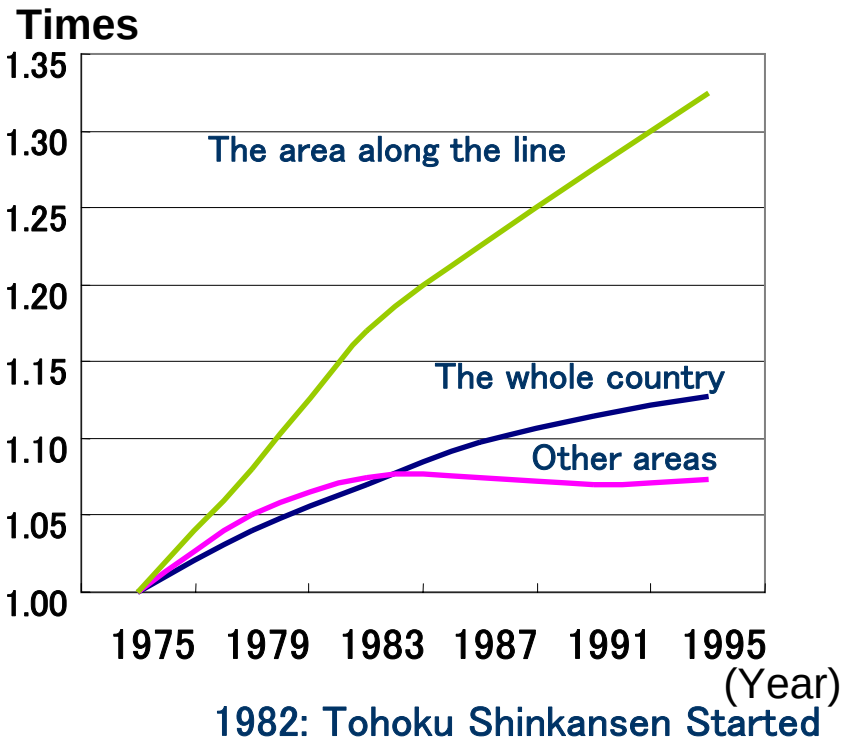


Major impacts of High Speed Rail

	Direct impacts	Indirect impacts
Users	High speed and cutting of travel time Mass transportation capacity Safety, comfort and reliability	Reducing congestion in other transport modes
Operators	Increasing income	
General	Environmental friendliness Generating procurement and employment by construction	Regional Development Expansion of the exchange area Increasing social profit by expanding markets Developing whole state economy Promoting well-balanced land development

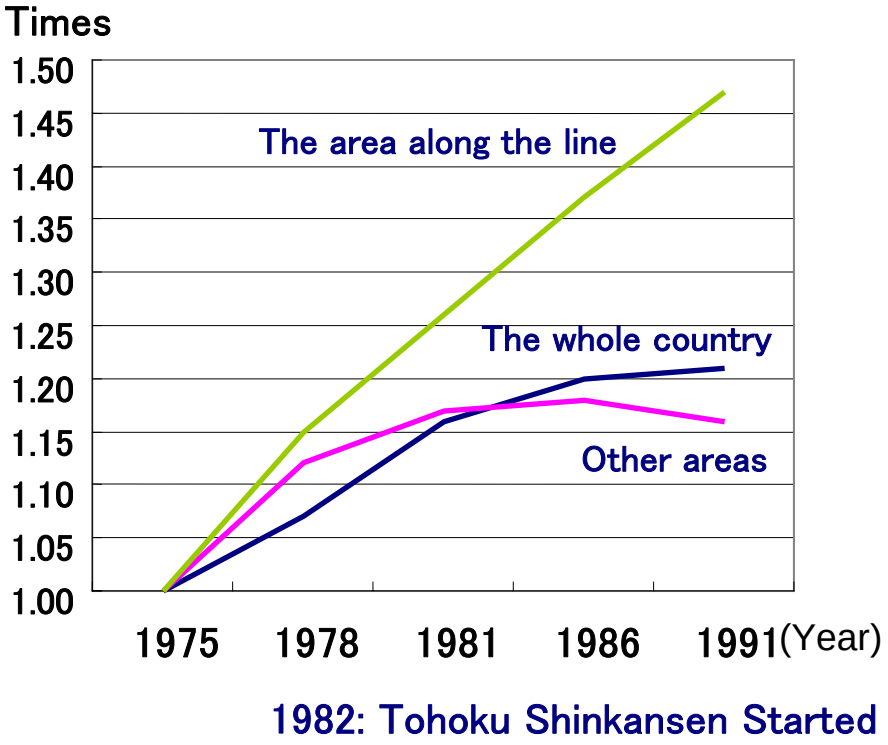
Example of Regional Development

(Indirect impacts)



Trend in population

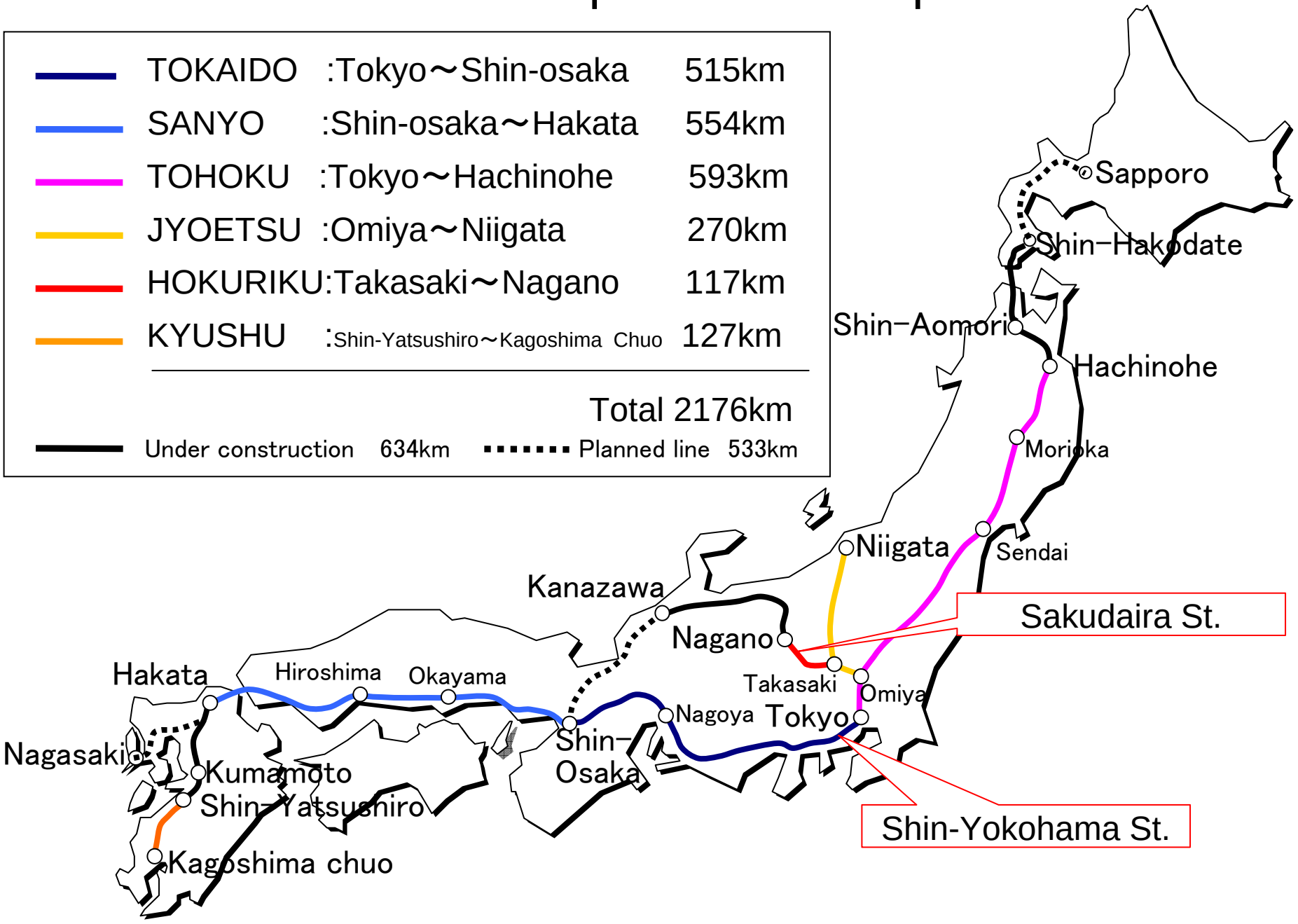
of the area along Tohoku Shinkansen



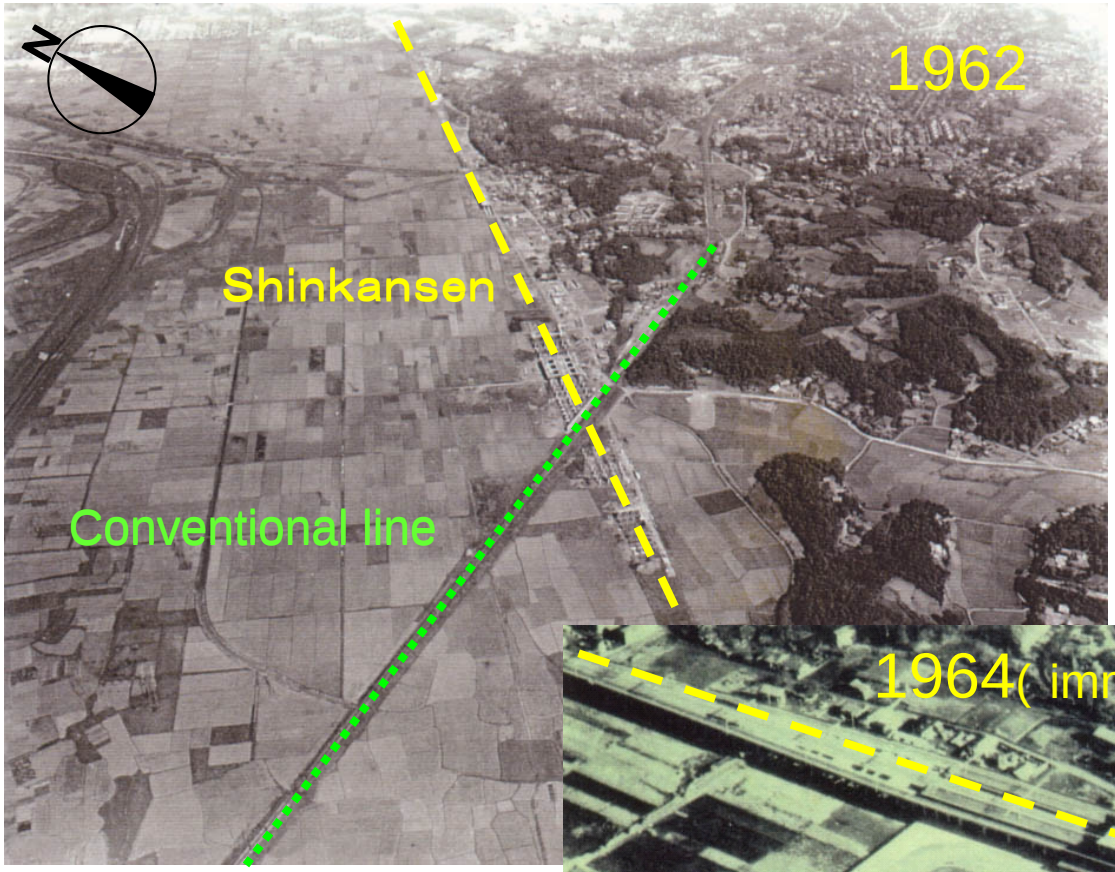
Trend of the number of companies

in the area along Tohoku Shinkansen

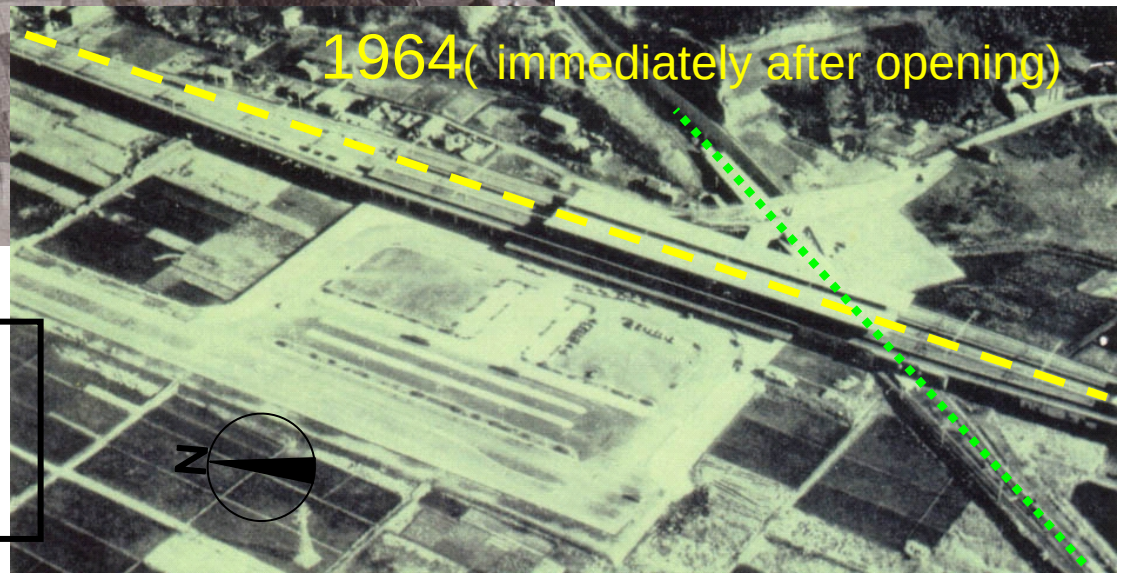
Location of the examples of developed stations



Area around Shin-Yokohama St.



In 1965, next year of Shinkansen opening, Land adjustment of 200 acre started and completed in 1980.



30km from Tokyo Station
5km from the center of Yokohama-city

Area around Shin-Yokohama St.

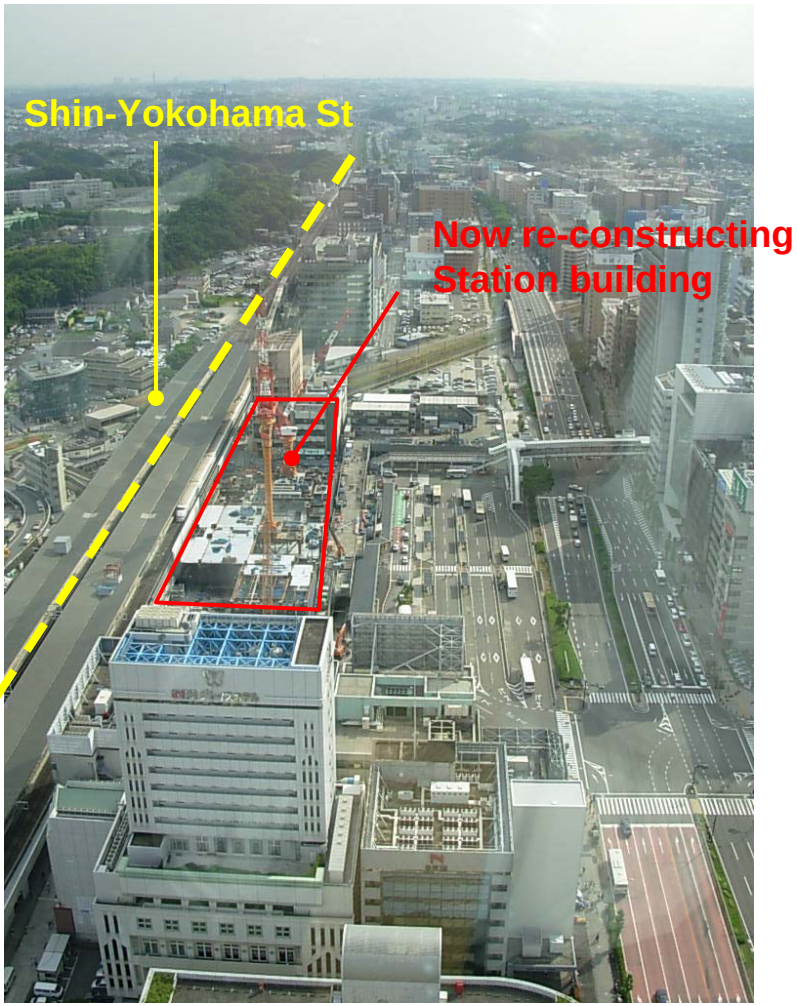
Now… Front entrance of Yokohama City

- **Creation of new business area**
- **Connection with center city by subway (1985)**
- **Construction of event arena & sports arena (2002 FIFA World Cup)**



Around Shin-Yokohama St.



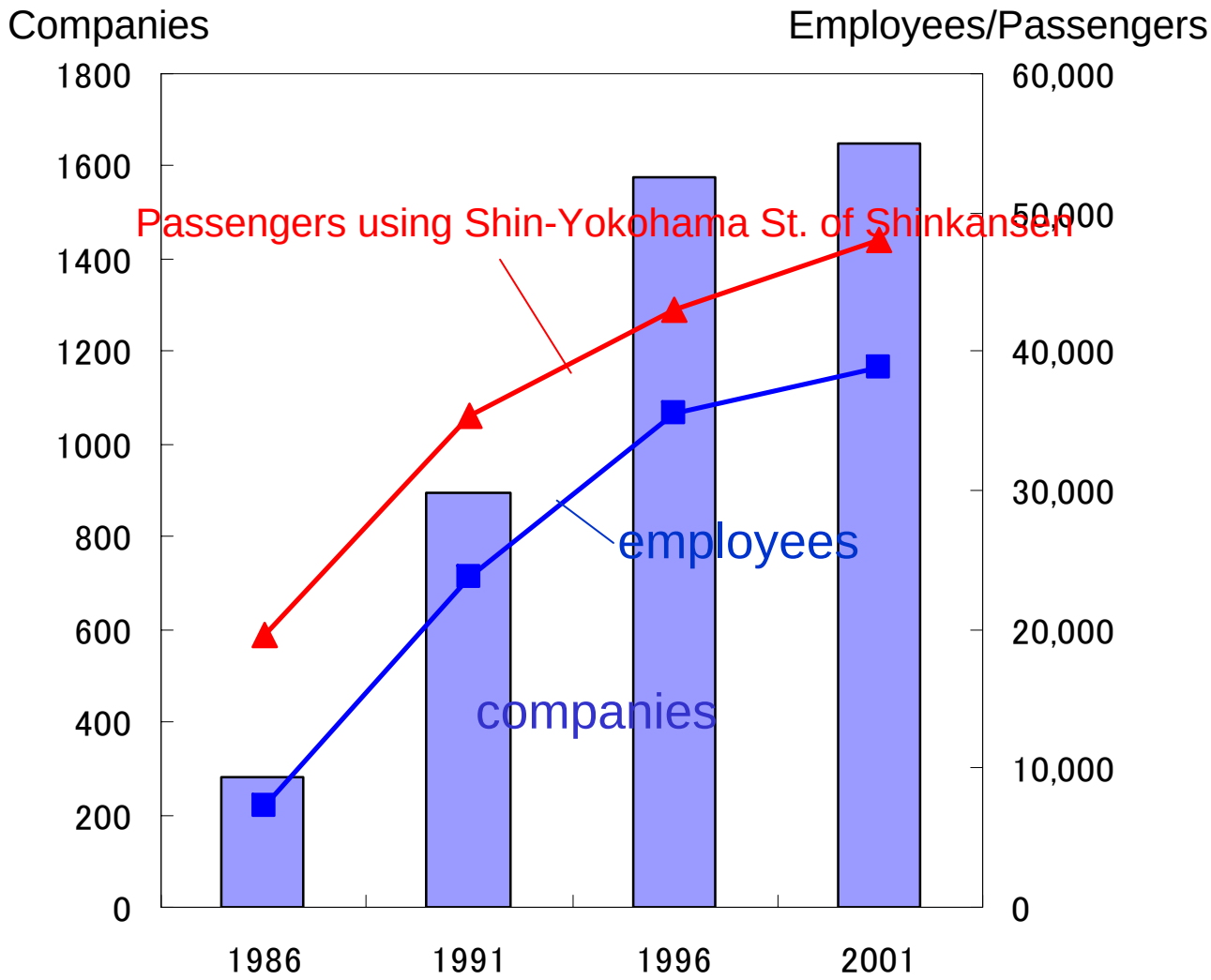


40 years time was taken to get this scene today.

Regional Development

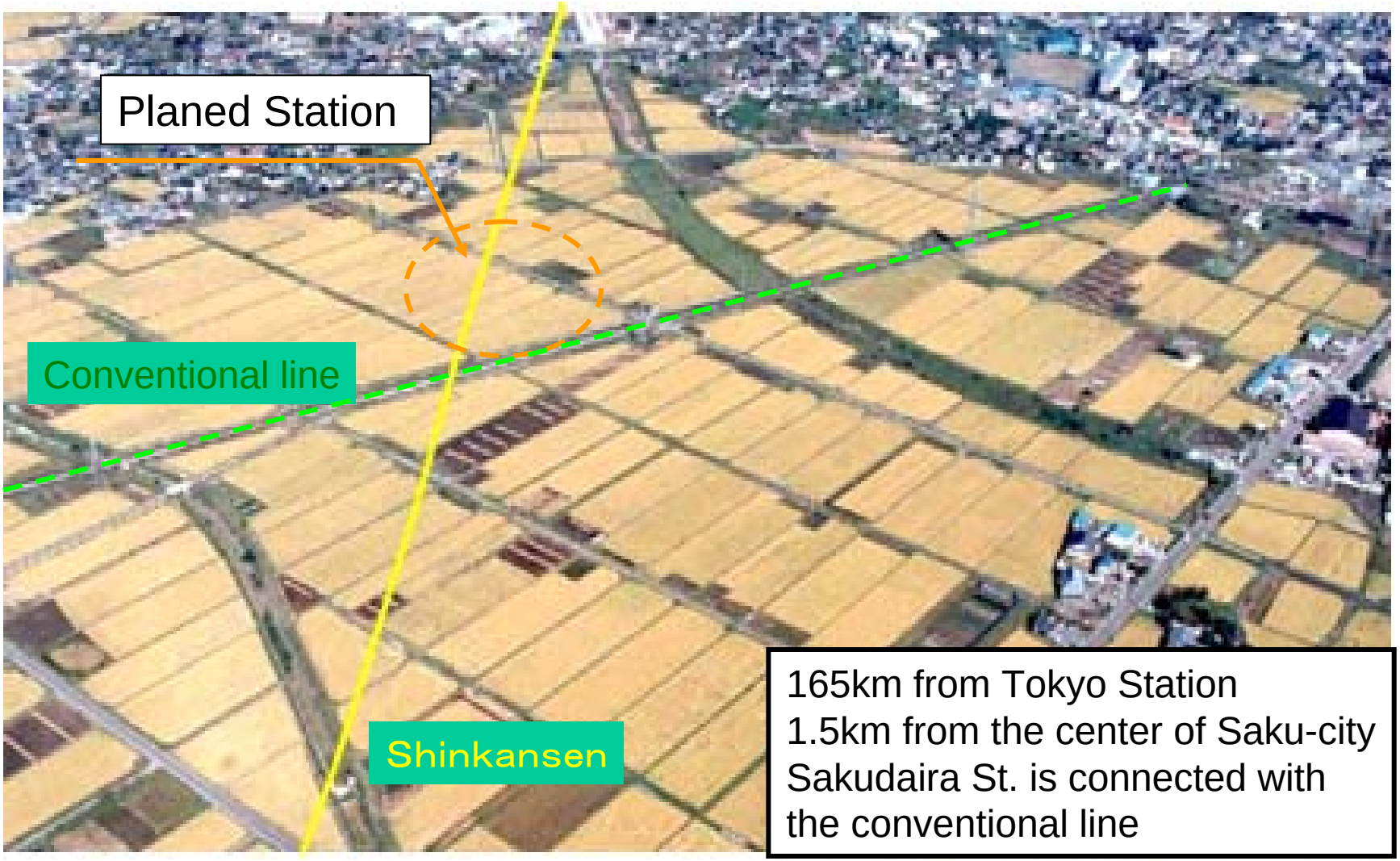
Shin-Yokohama St. Area

- Increase of number of Companies & Employees



Area around Sakudaira St.

Before 148 acre development around the station



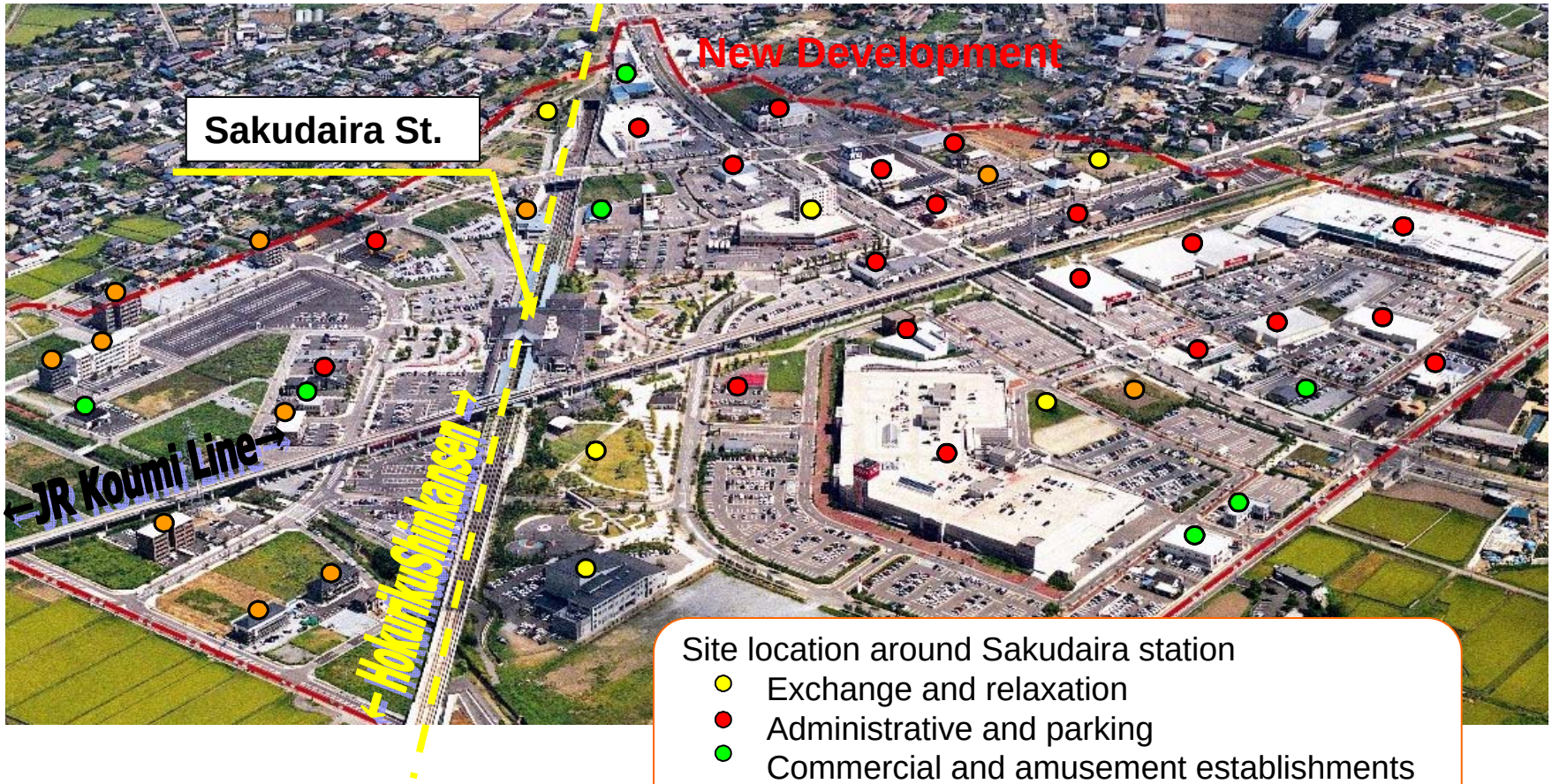
165km from Tokyo Station
1.5km from the center of Saku-city
Sakudaira St. is connected with the conventional line

Area around Sakudaira St. (4years after opening)

= Year 2001

Advanced development and establishment of infrastructures

Can secure social and economic impact at early stage

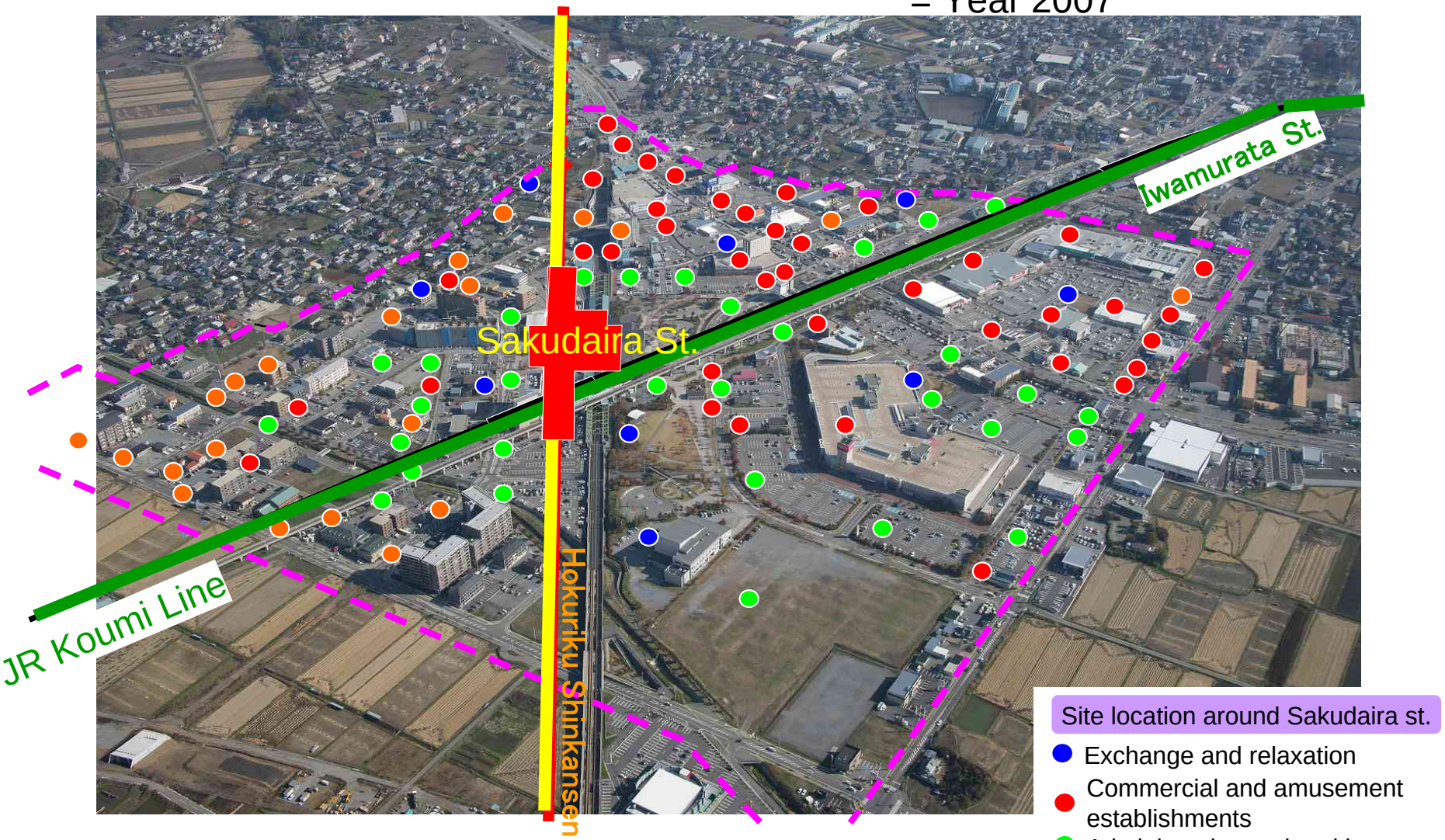


Site location around Sakudaira station

- Exchange and relaxation
- Administrative and parking
- Commercial and amusement establishments
- Residential and others

Area around Sakudaira St.(10years after opening)

= Year 2007

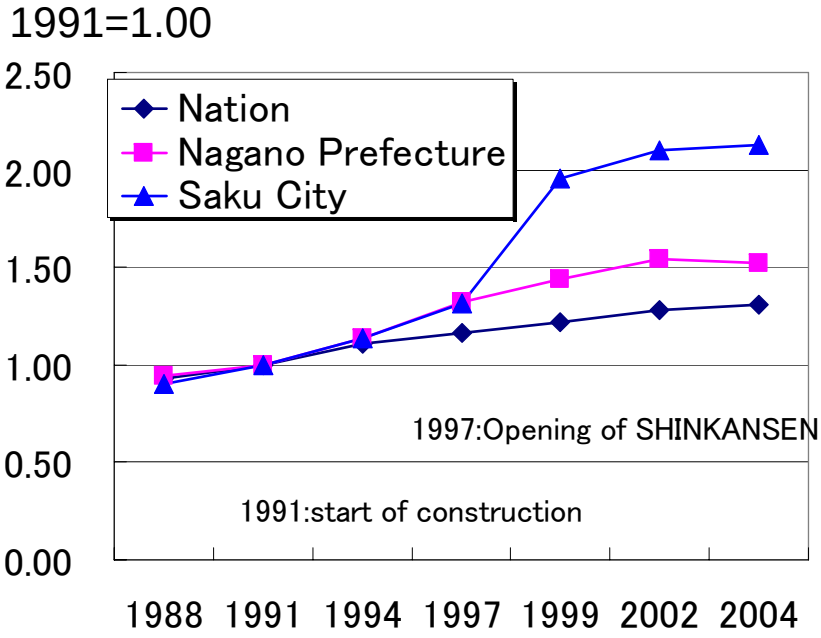


Local government completed the development of road, park, open space, a toll parking lot, etc. in 5 years after opening of Shinkansen.
Public sector has been developing commercial establishments, apartments/condominium, a toll parking lot, etc. since opening of Shinkansen.

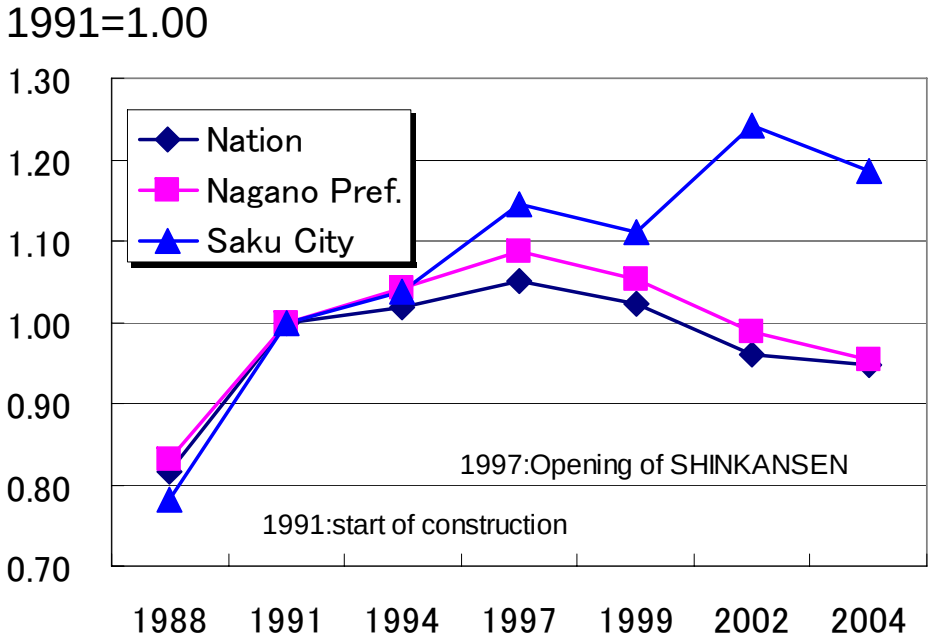
Increasing social profit by expanding markets

Sakudaira St. in Saku city, Nagano Pref.

- Increase of retail area



- Increase of retail sales



Integrated development of station and its surrounding area in Japan

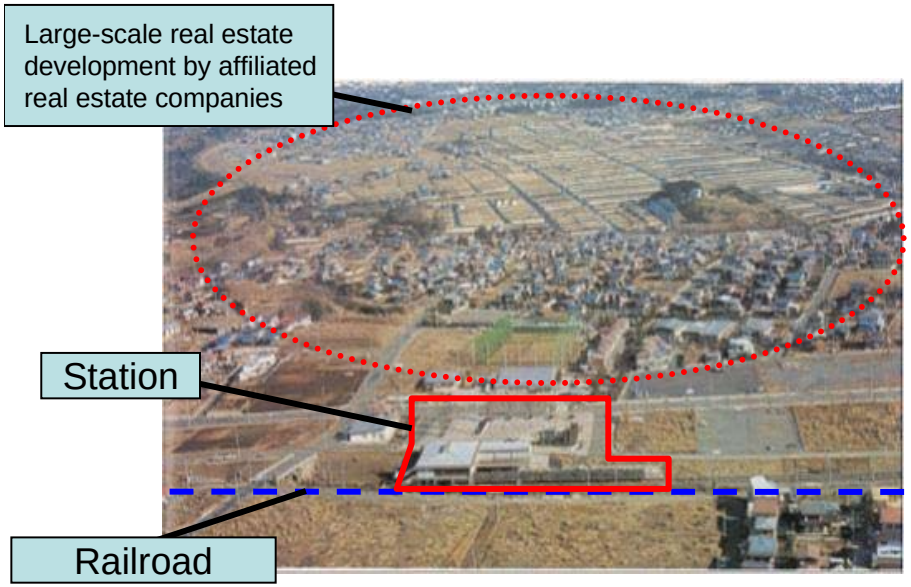
(Station and the vicinity as the face of the city)

(1)Urban development around station in the era of rapid economic growth

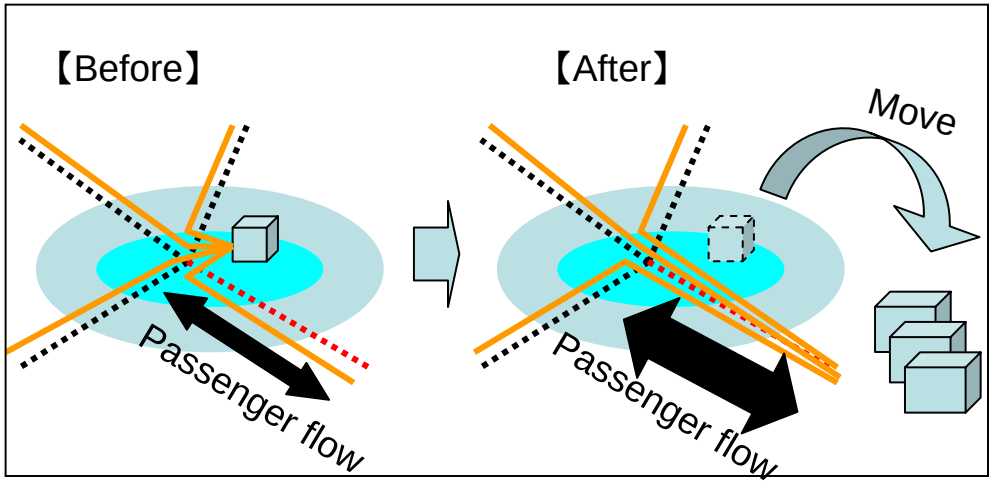
Business model of railway enterprises after WWII through the era of rapid economic growth

・Private railway enterprises promote the development of suburban residence or attractions
（Tokyu Railway, Hankyu Railway)

・Stimulation of traffic demand through the relocation of university campus from city center to suburban area



＜Tsukushino Station, Tokyu Den-en Toshi line (Suburb of Tokyo) around 1972＞
Affiliated real estate developer of railway enterprises promoted development
(Source: Tokyu Corporation, modified by author)



＜Increase of passengers by the relocation of university campus from city center to suburban area>

Operating revenue of Tokyu Corporation in 1971



(2)Redevelopment of the station and the vicinity in the era of low growth

【Basic concept】

- Redevelopment of the station and the vicinity through the renovation of existing facilities by the collaboration of public and private sector.
- Win-Win relationship for both public sector and railway enterprises.

Railway enterprises

Provide land for urban development by utilizing unused yard or air space above railroad, which facilitates the intensive land use by developers.

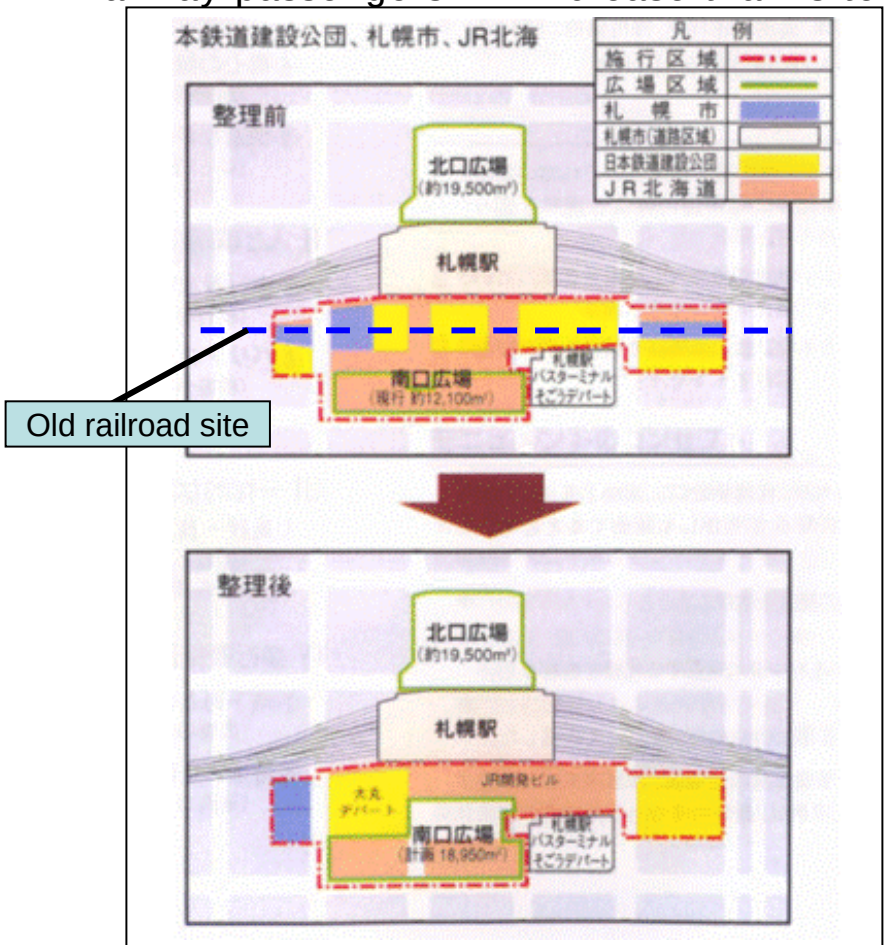
Public sector（Local government）

Construct public space or access road on the land where the readjustment project has finished. Grant bonus Floor Area Ratio or permission of transfer in order to give incentive to developers.

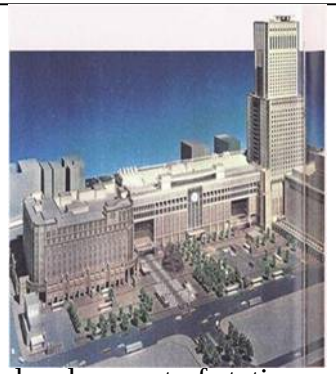
CASE1：Sapporo station

Railway enterprises

・Transfer land(former yard) around Sapporo station.
・Construct redevelopment building on a new land yielded by the land readjustment project (JR＋department store).
・Utilize new free space under viaduct.
・Railway passengers will increase thanks to the modal shift from motorcars.



Land readjustment project in front of Sapporo station
(Blue: Sapporo City, Yellow: Former Yard, Orange: JR)



Joint development of station building (JR and Department Store)



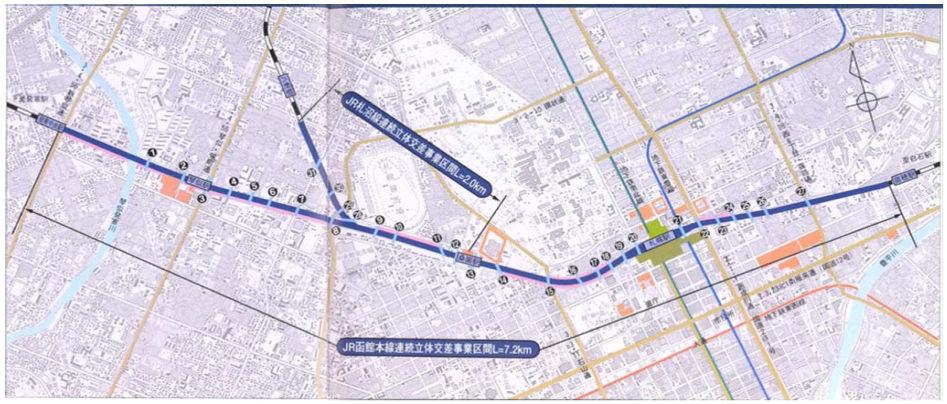
JR leases new free space to electronics retail store

(Source: Right:Sapporo city, left two: JR Hokkaido)

CASE1：Sapporo station

City

・Lift existing railroad and put it on the viaduct to connect the both sides of the railroad.
・Construct station plaza by land readjustment project and improve the connectivity to other transport mode.



○Project Scheme

Subsidy from national budget 433million Yen ($4million)	Sapporo city 306millin Yen ($2.8million)	JR 133million Yen ($1.2million)

Project of elevating existing railroad on the viaduct



Construction of new station plaza

(Source: Sapporo city)

CASE2：Shinjuku station

Renewal of Route 20 Shinjuku overpass

Railway Enterprises	・Offer unused air space above railroad for artificial ground
City	・Construct artificial ground ・Highway bus depot, taxi, public parking lot



Development on artificial ground

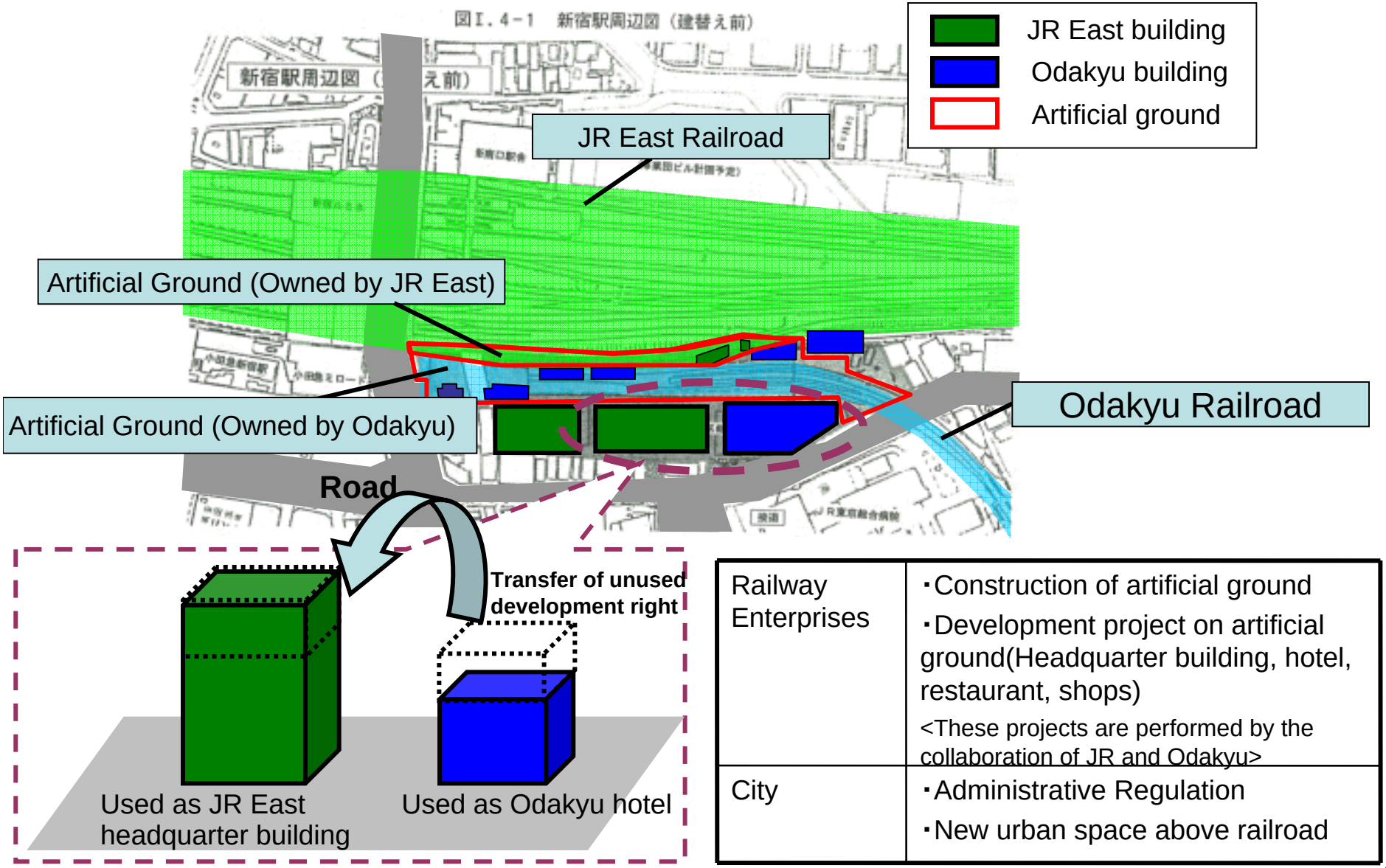


Construction of artificial ground

(Source: JR East website)

CASE2：Shinjuku station

"Shinjuku Southern Terrace" project



Railway Enterprises	・Construction of artificial ground ・Development project on artificial ground(Headquarter building, hotel, restaurant, shops) <These projects are performed by the collaboration of JR and Odakyu>
City	・Administrative Regulation ・New urban space above railroad

(Source: Yasuo Hibata, Yousekiritsu-kenkyukai(2002), Modified by author)

CASE3：Tokyo station

City

・Deregulation of related regulation about urban development.
・Grant bonus Floor Area Ratio.
・Basic construction work
  - Station plaza
  - Free passenger corridor under railway station
・Create better urban space and landscape.



Basic construction work by city
(Source: Tokyo Met. government)

Railway enterprises

- Get unused Floor Area Ratio for the construction of new station building.
- Preservation and restoration work of the Tokyo Station Marunouchi building.



Transfer unused development right to other new building construction project in the vicinity

(Source: JR East pamphlet)



Landscape after the completion of the project

(Source: JR East pamphlet)

(3) New business inside railway station

○Railway enterprises promote the non-transport business inside railway station.

→About 15% of the operating revenue derives from non-transport business inside railway station.

→Increase of the revenue of railway enterprises facilitates the safety investment. In addition, railway user can enjoy relatively low fares.

○Example of business

- Convenience store
- Shopping zone
- Information counter
- Governmental service
- Others

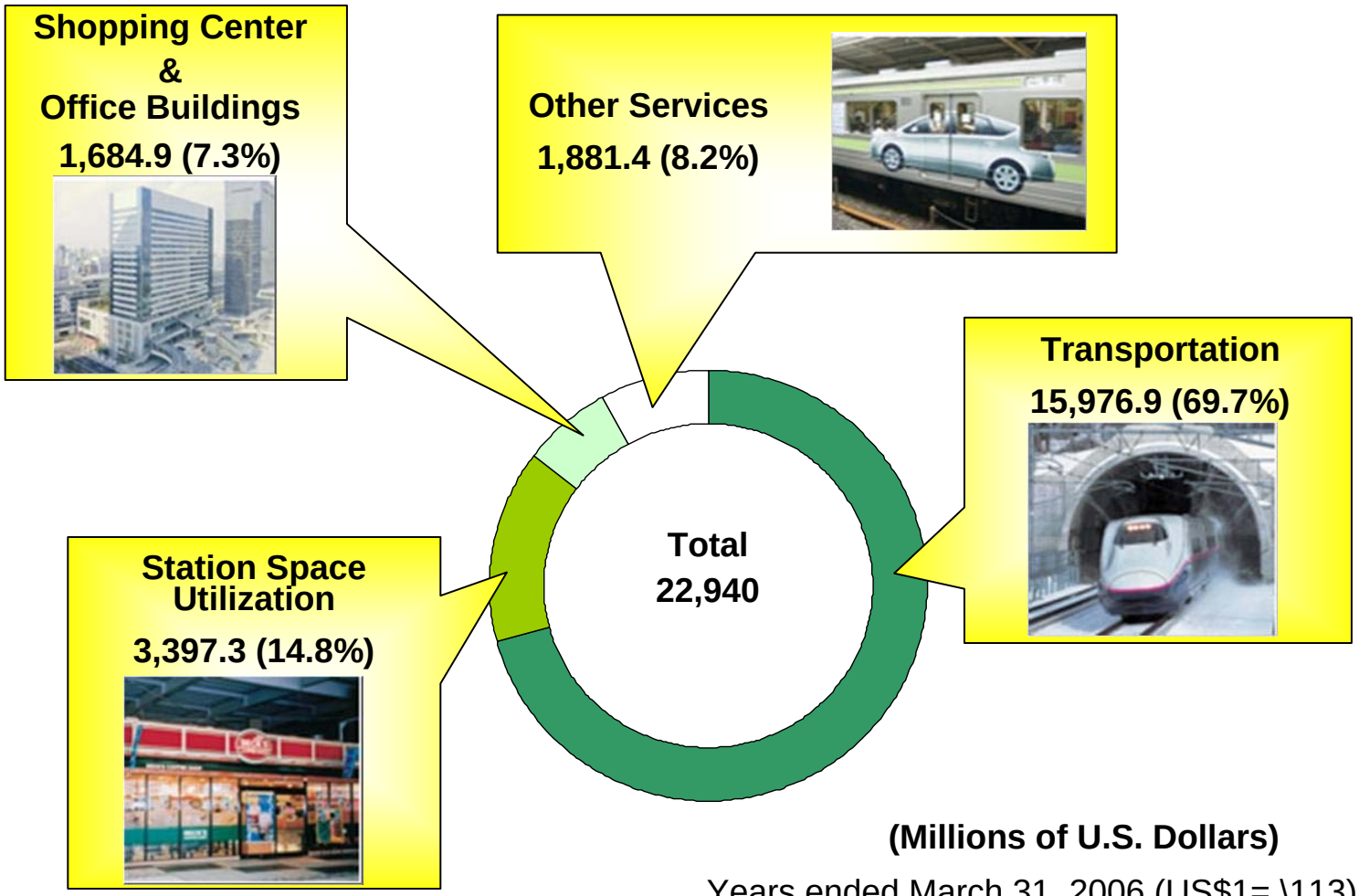
Tokyo Station has “Station Concierge” which offers special customer service, such as customer information, foreign exchange, copy, fax, and cloak.

Railway enterprises offer station-based nursery, clinic, or local government branch in station premises, and raise the welfare of local community.

Increase of non-transport revenue

After Japan National Railway reformation, Each of JR companies promotes the measures to increase non-transport revenue. Some companies including JR East earn more than ¼ of operating revenue in non-transport sector.

Ex. of JR East **Consolidated Operating Revenues**



(Millions of U.S. Dollars)

Years ended March 31, 2006 (US$1= \113)

(Source: JR East)

Customer service inside railway station

In Japan, some railway enterprises operate large-scale shops and restaurants.

JR East provides “ecute”, a new commercial space inside railway station.

E: Eki(Station)
C: Center
U: Universal
T: Together
E: Enjoy



ecute Omiya



ecute Tachikawa

(Source: JR East website)