

Shinkansen

~The High-Speed Rail System in Japan~

May 18th, 2010

Consulate General of Japan in San Francisco

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1. Japan's HSR

Birth of Shinkansen

Background

Economy

- High economic growth in 1950s
→ Increased movement of people and goods
- Decision to hold Tokyo Olympics in 1964

Railway

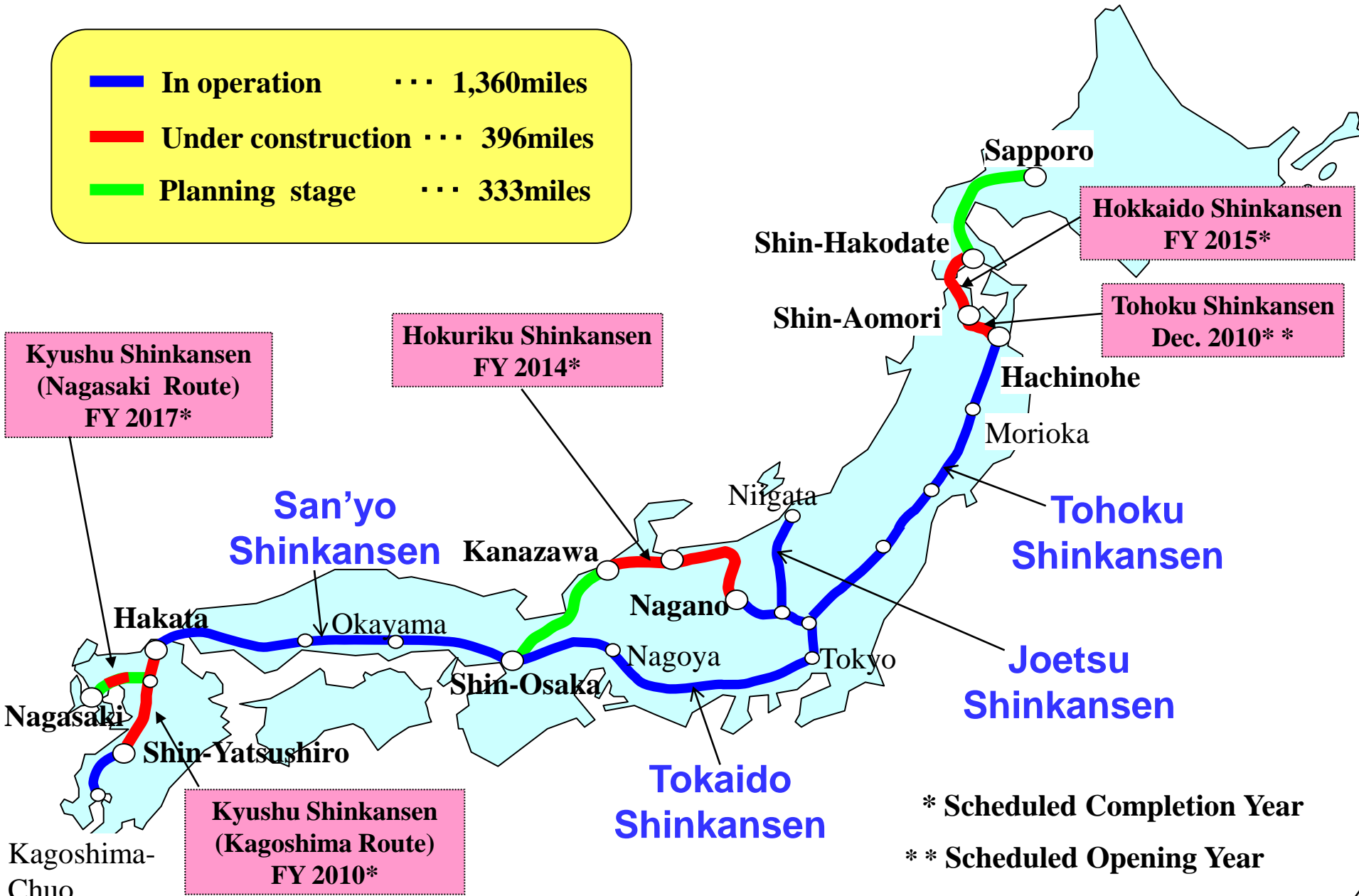
- Transportation demand increase
Tokaido Line b/w Tokyo and Osaka
- Necessity of High speed mass transportation

Process

- 1958 Decision to construct Tokaido Shinkansen
- 1964 Opening of Tokaido Shinkansen

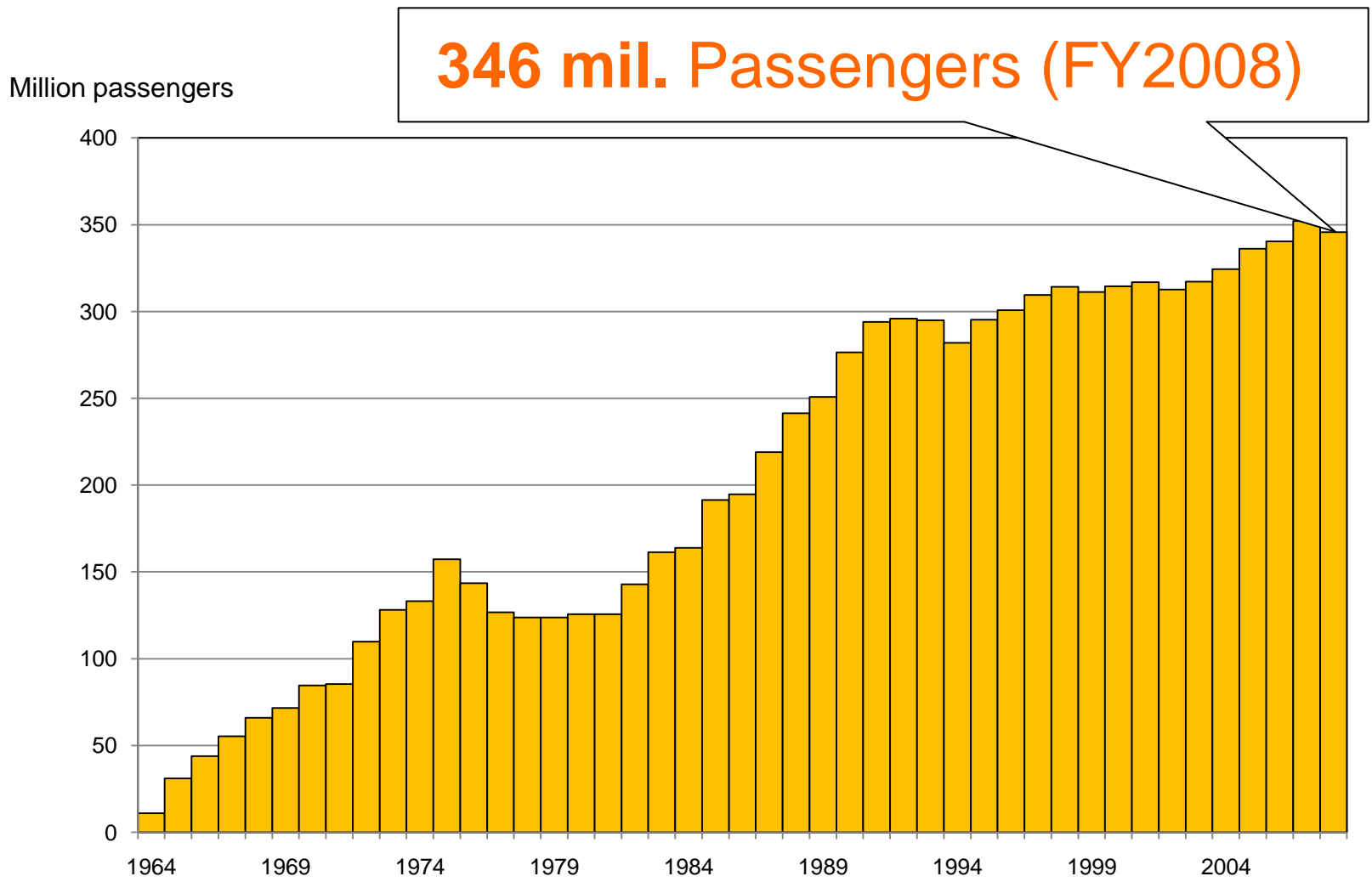
Shinkansen Network

■ In operation ··· 1,360miles
■ Under construction ··· 396miles
■ Planning stage ··· 333miles



* Scheduled Completion Year
 ** Scheduled Opening Year

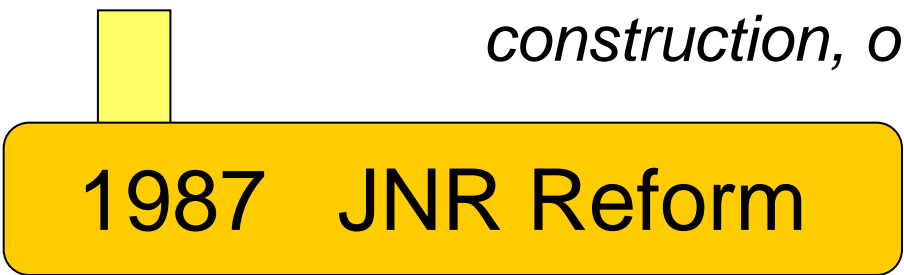
The Transition of Shinkansen Ridership



Privatization of Japanese National Railways

Japanese National Railways(JNR) (public company)

construction, ownership and operation



JNR was privatized and divided into 7 companies.



- ◆ 3 companies were excluded from the jurisdiction of the JR Law in 2001
- ◆ Completion of selling the stocks owned by the government
 - JR East : in 2002
 - JR Central : in 2006
 - JR West : in 2004

Scheme Change of Construction Cost

1959 ~

Tokaido, Sanyo, Tohoku, & Joetsu Shinkansen
: Covered mainly by **Loan**



After the Reform of Japanese National Railways (JNR)
in 1987

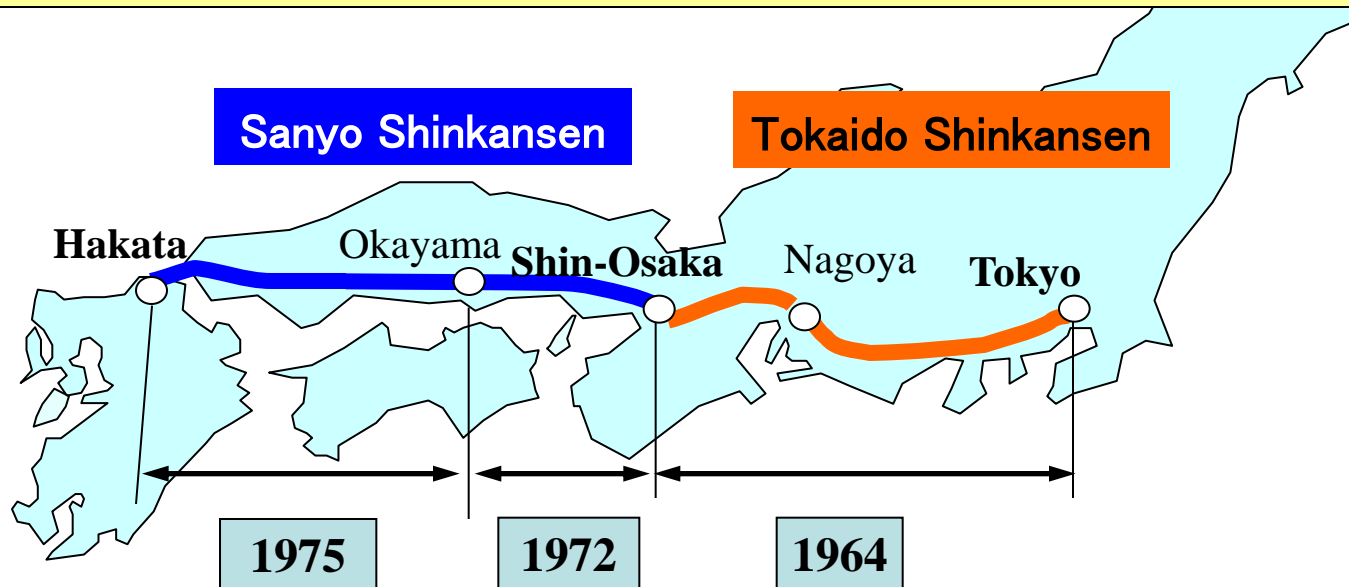
~ Today

Shinkansen has been constructed as public works.
: Covered mainly by
Subsidies from the National & Local Governments

JNR Reform

Tokaido-Sanyo Shinkansen

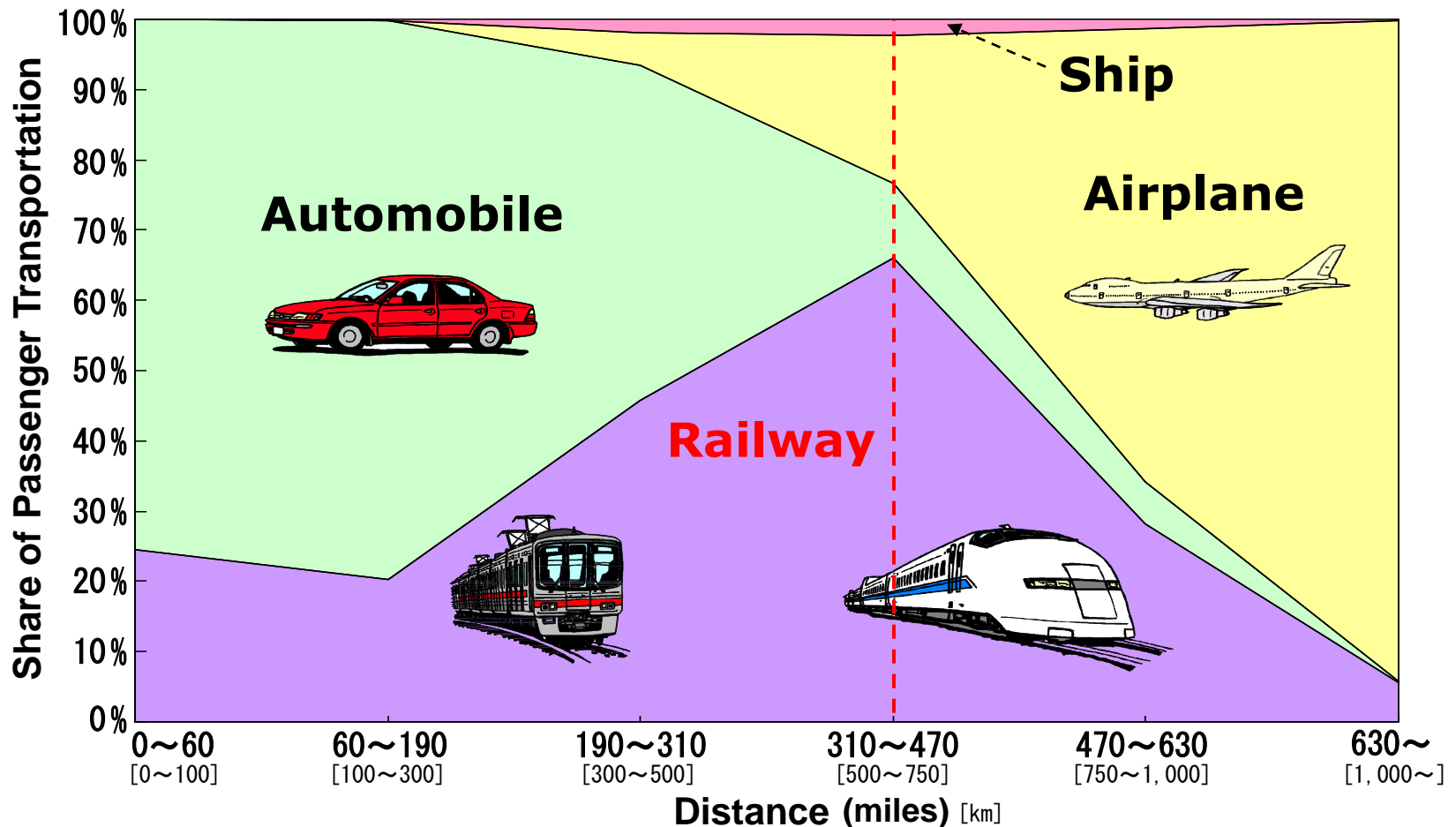
- **No Legal Scheme** Specific to Shinkansen Construction
 - JNR constructed them as track additions to conventional lines.
- The construction cost was covered by **loan with interest**.
- For Tokaido Shinkansen, **the World Bank (IBRD) Loan** amounting to 28.8 billion yen (\$80 million) was provided, which was about 7.5% of the total cost (about 380 billion yen).



2. Effects of HSR

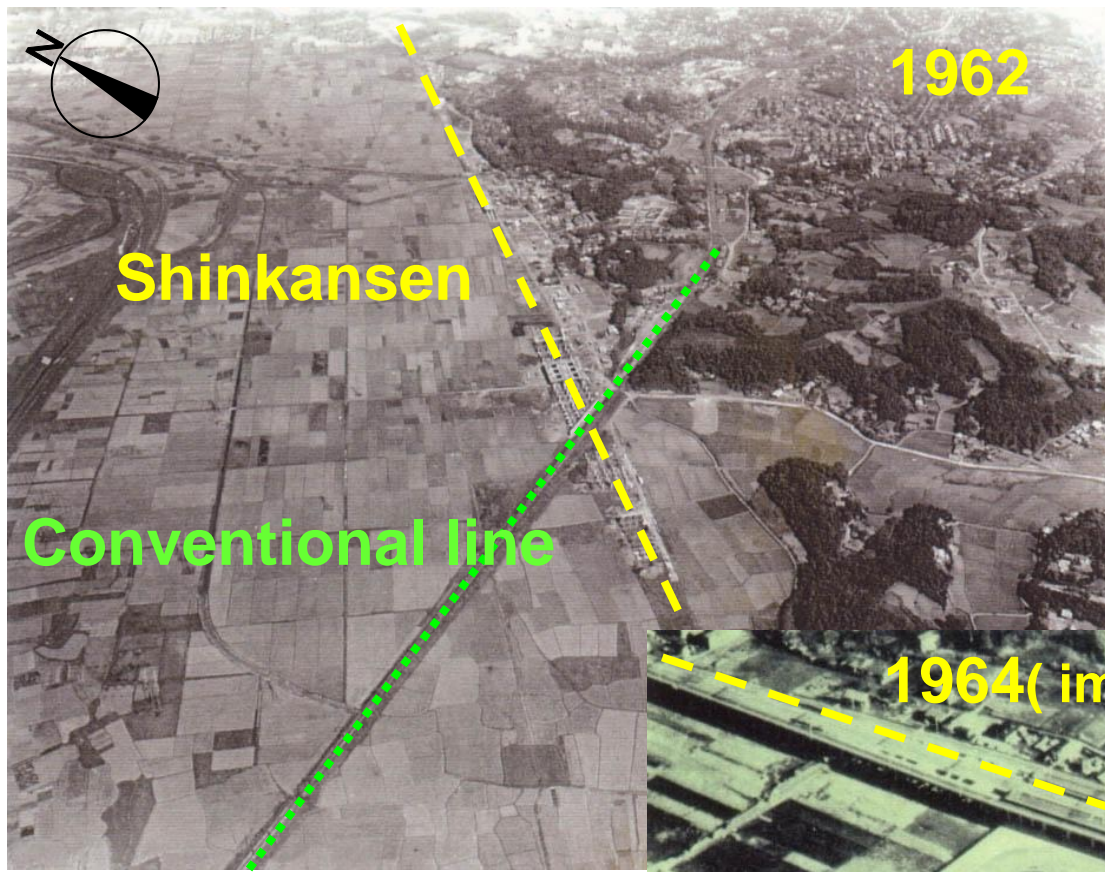
Share of Passenger Transport Modes According to Distance

The distance zone that Shinkansen demonstrates its competitiveness : 300~450miles (travel time: 2~4hrs.)

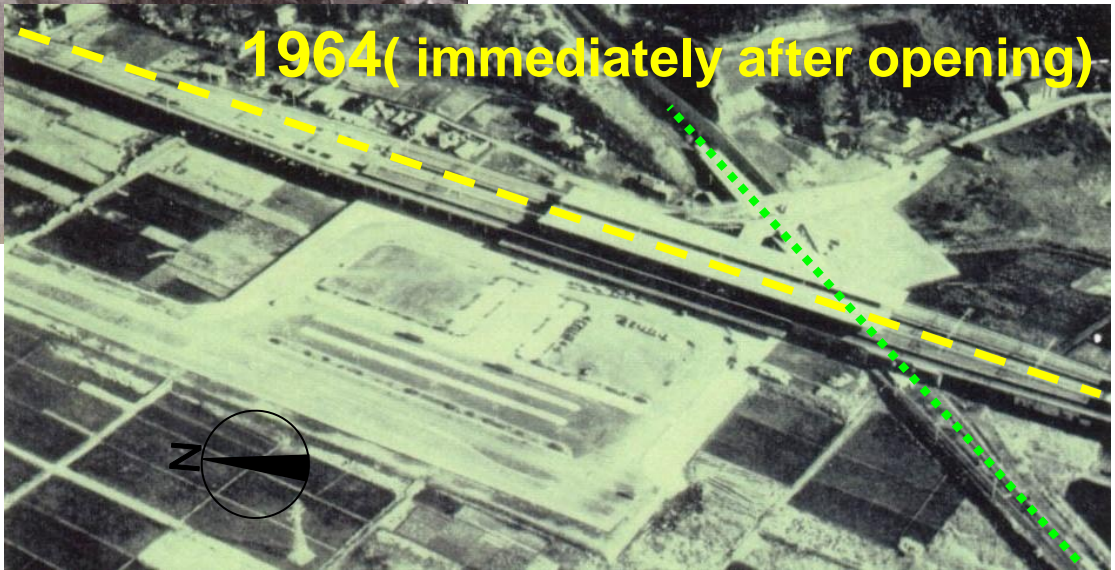


Regional Development

Area around Shin-Yokohama St.



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



19miles from Tokyo Station
3.1miles from the center of
Yokohama-city

Regional Development

Area around Shin-Yokohama St.

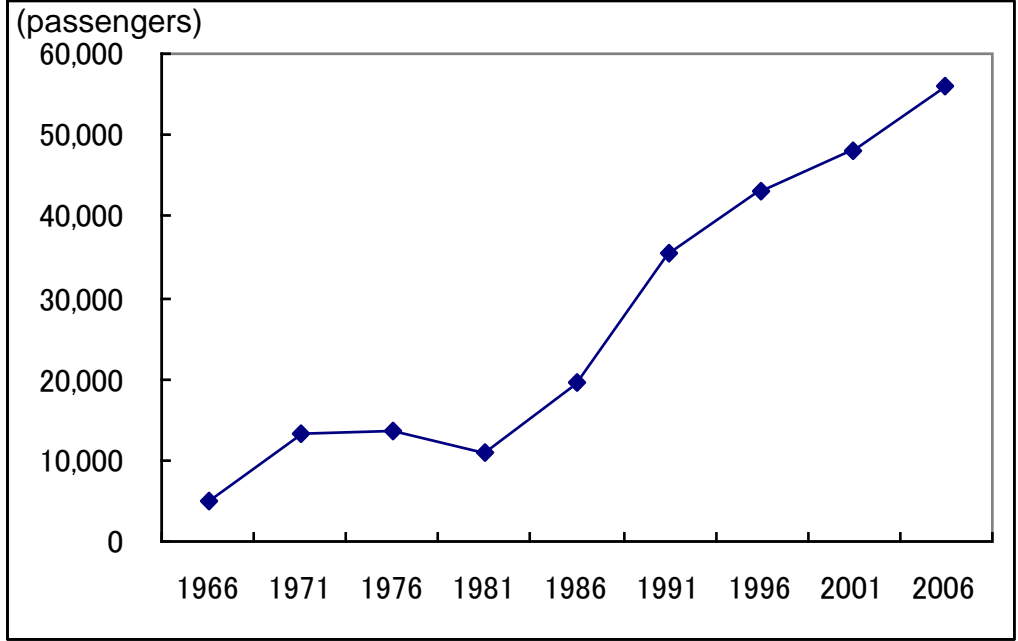
Now... Front entrance of Yokohama City

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

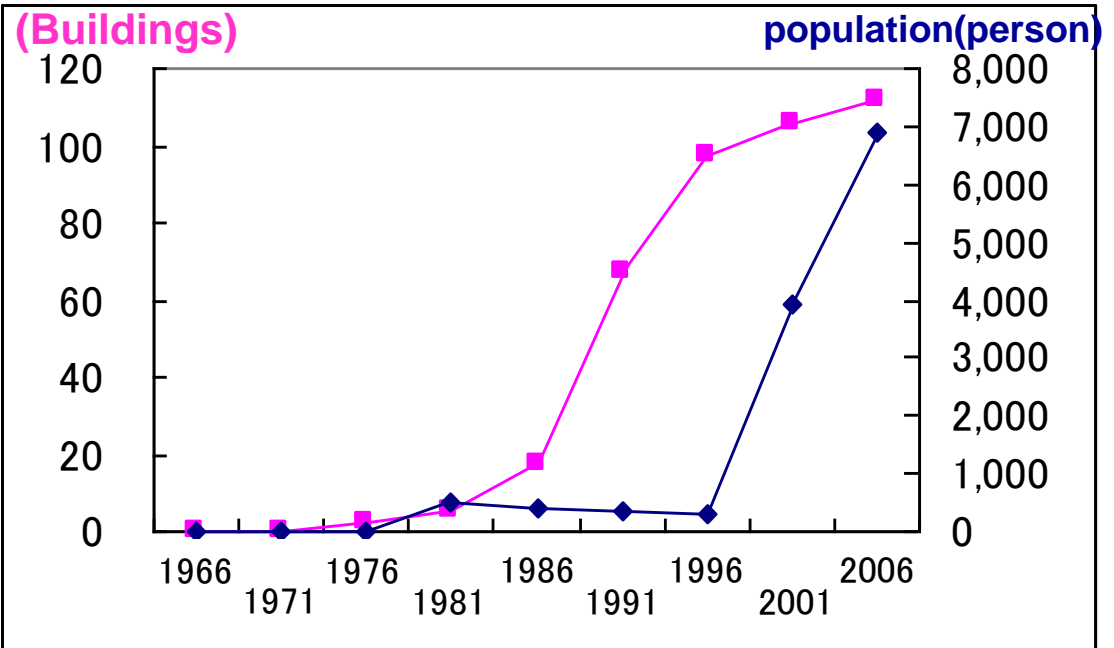


Regional Development

The number of passengers using Shin-Yokohama St. of Shinkansen



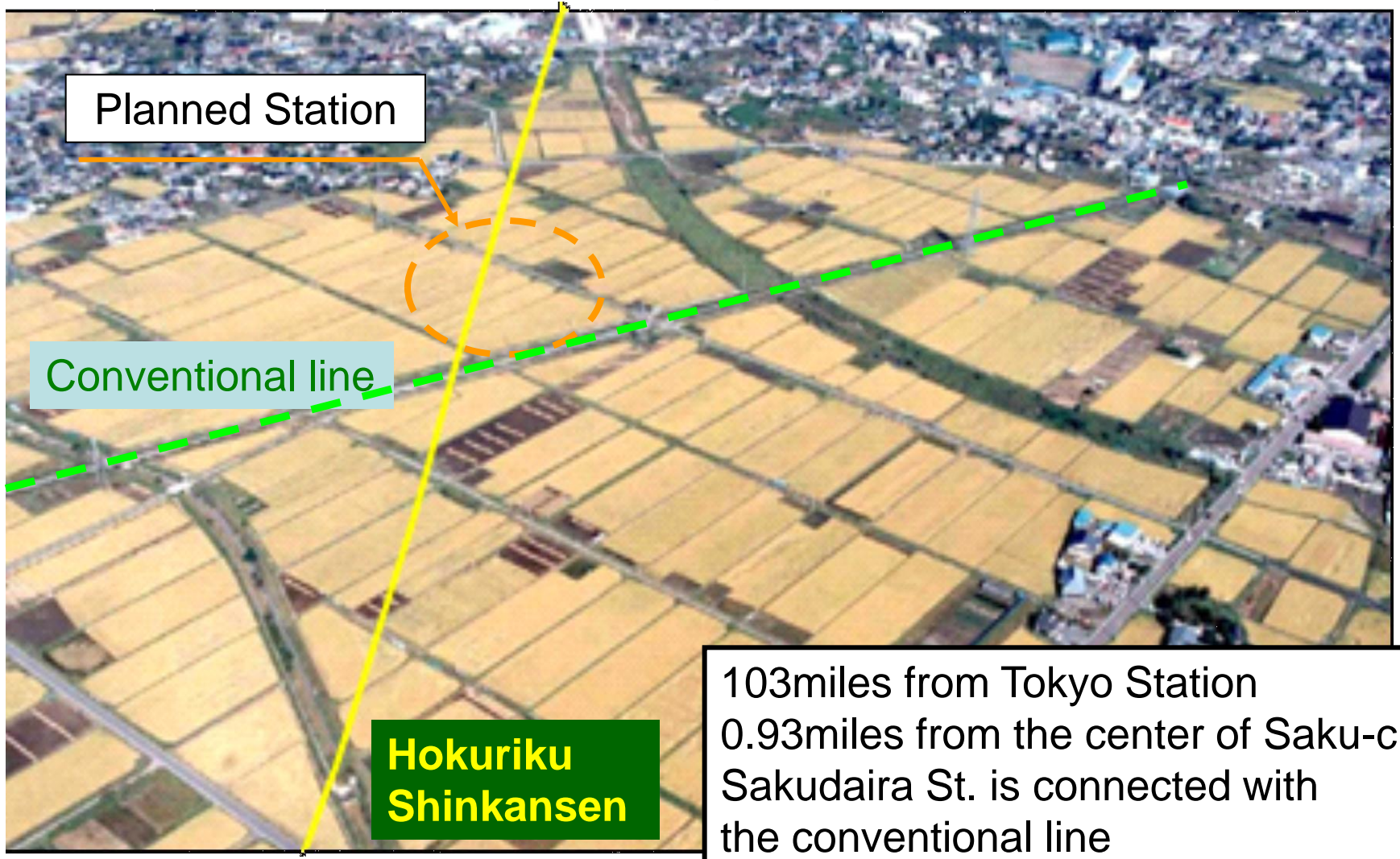
The number of commercial buildings and population around Shin-Yokohama St.



Regional Development

Area around Sakudaira St.

Before 148 acre development around the station



Planned Station

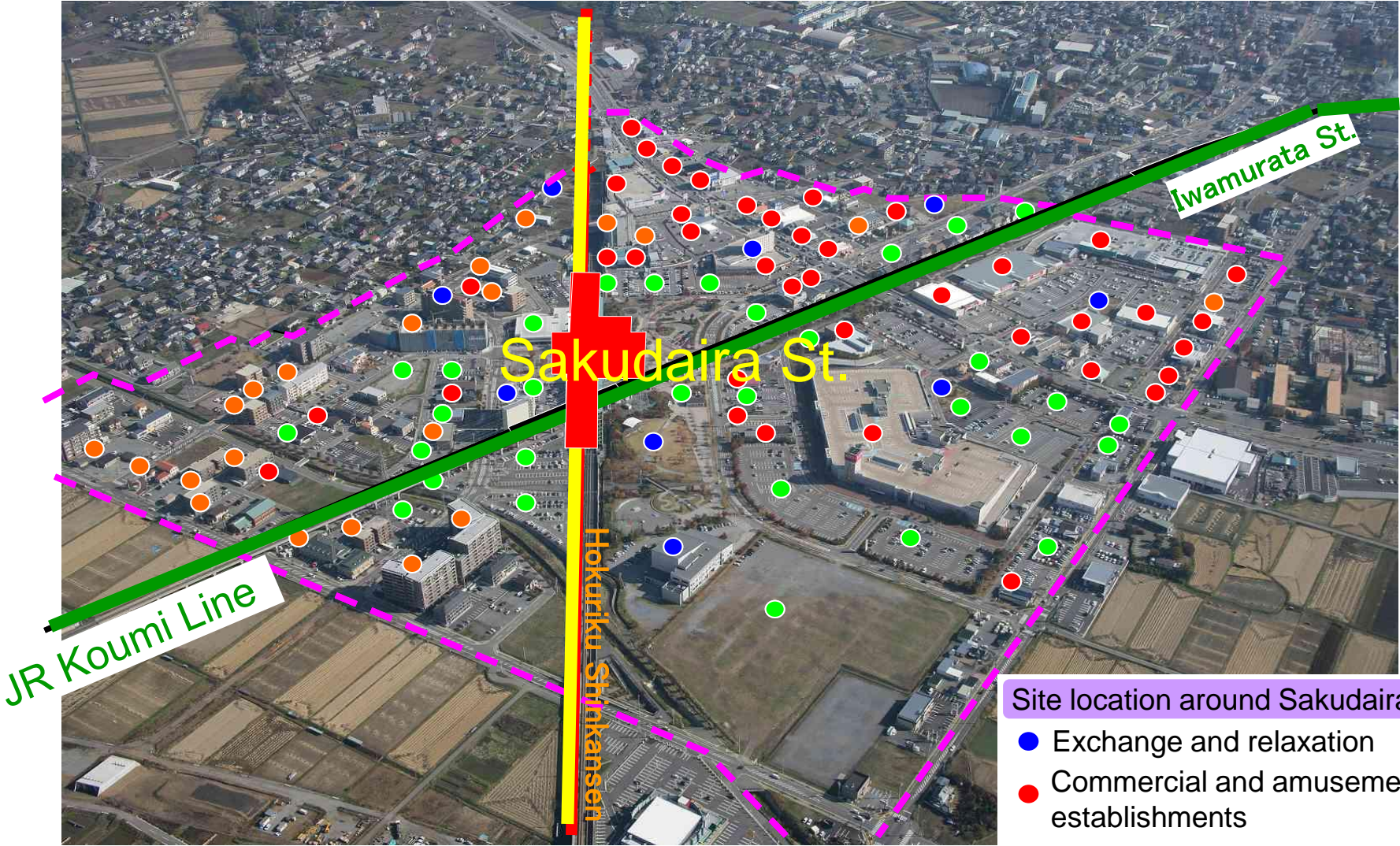
Conventional line

**Hokuriku
Shinkansen**

103miles from Tokyo Station
0.93miles from the center of Saku-city
Sakudaira St. is connected with
the conventional line

Regional Development

Area around **Sakudaira St.** (10 years after opening)
= Year 2007



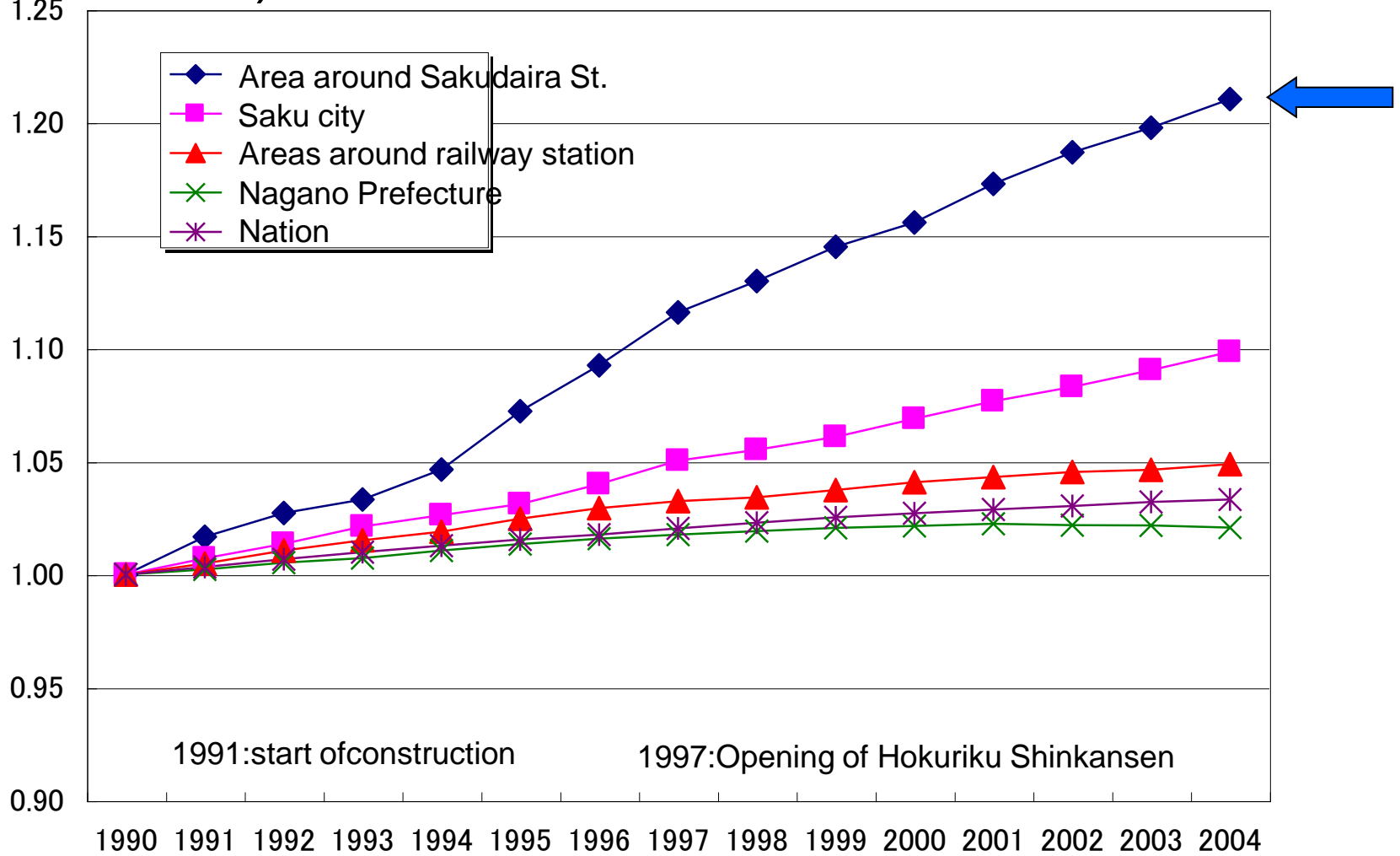
Site location around Sakudaira st.

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

Regional Development

Increase of the population in the area around Sakudaira St.

(1990=1.00)



International Cooperation

- Japanese rail technology has contributed to the success of the HSR in Taiwan, China, and UK.



**Thank you very much
for your attention.**