

NEXTSTATION

MARRAKECH 2015



5TH INTERNATIONAL CONFERENCE ON RAILWAY STATIONS



Palmeraie Palace

Marrakech, 21-22 october 2015



Introduction of JR East Shinkansen, High Speed Stations

- Takumi, ISHII
- Deputy Director, JAPAN RAILWAY GROUP, Paris Office
- 4A , Station for high speed service



Content

- ❑ Railway in Japan
- ❑ Shinkansen Network
- ❑ About JR East
- ❑ JR East's Shinkansen Network
- ❑ Compositions of Shinkansen Station
- ❑ Development around the Shinkansen Station
- ❑ Economic effects of Shinkansen's Station



Railway in Japan



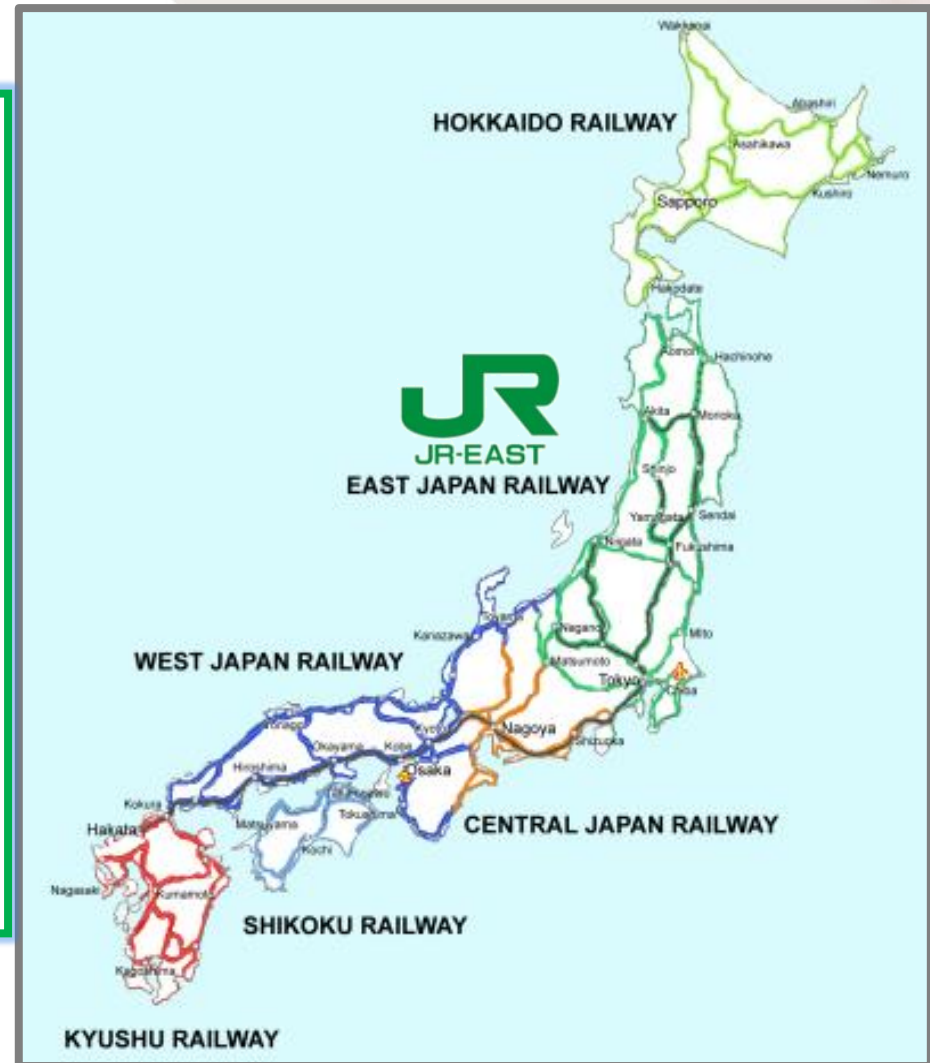
208 Operators

**9.0 billion passengers
a year for six JRs**

**23.3 billion passengers
a year for the
entire Japan**

**(63.9 million passengers
a day)**

As of 1st July, 2014

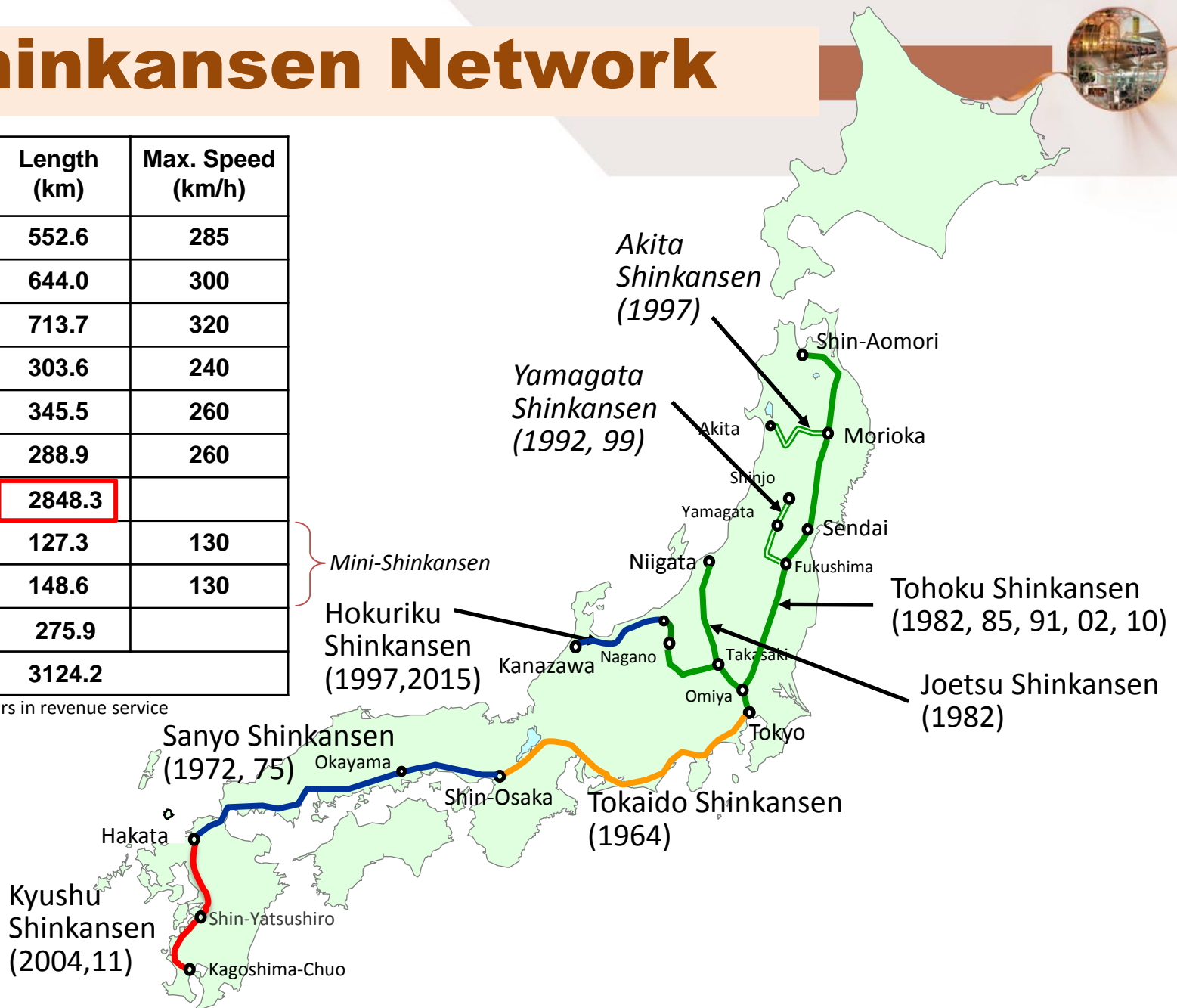


Shinkansen Network



Line Section	Length (km)	Max. Speed (km/h)
Tokaido	552.6	285
Sanyo	644.0	300
Tohoku	713.7	320
Joetsu	303.6	240
Hokuriku	345.5	260
Kyushu	288.9	260
Sub Total	2848.3	
Akita	127.3	130
Yamagata	148.6	130
Sub Total	275.9	
Total	3124.2	

*Length: kilometers in revenue service



Mini-Shinkansen

Hokuriku Shinkansen (1997, 2015)

Sanyo Shinkansen (1972, 75)

Tokaido Shinkansen (1964)

Kyushu Shinkansen (2004, 11)

About JR East



***JR EAST, a passenger railway company,
is the largest railway company in JAPAN***

Network: 7.512 km

**No. of Passengers: 17,11 million /day
(the largest in the world)**

No. of Trains: 12,780 /day

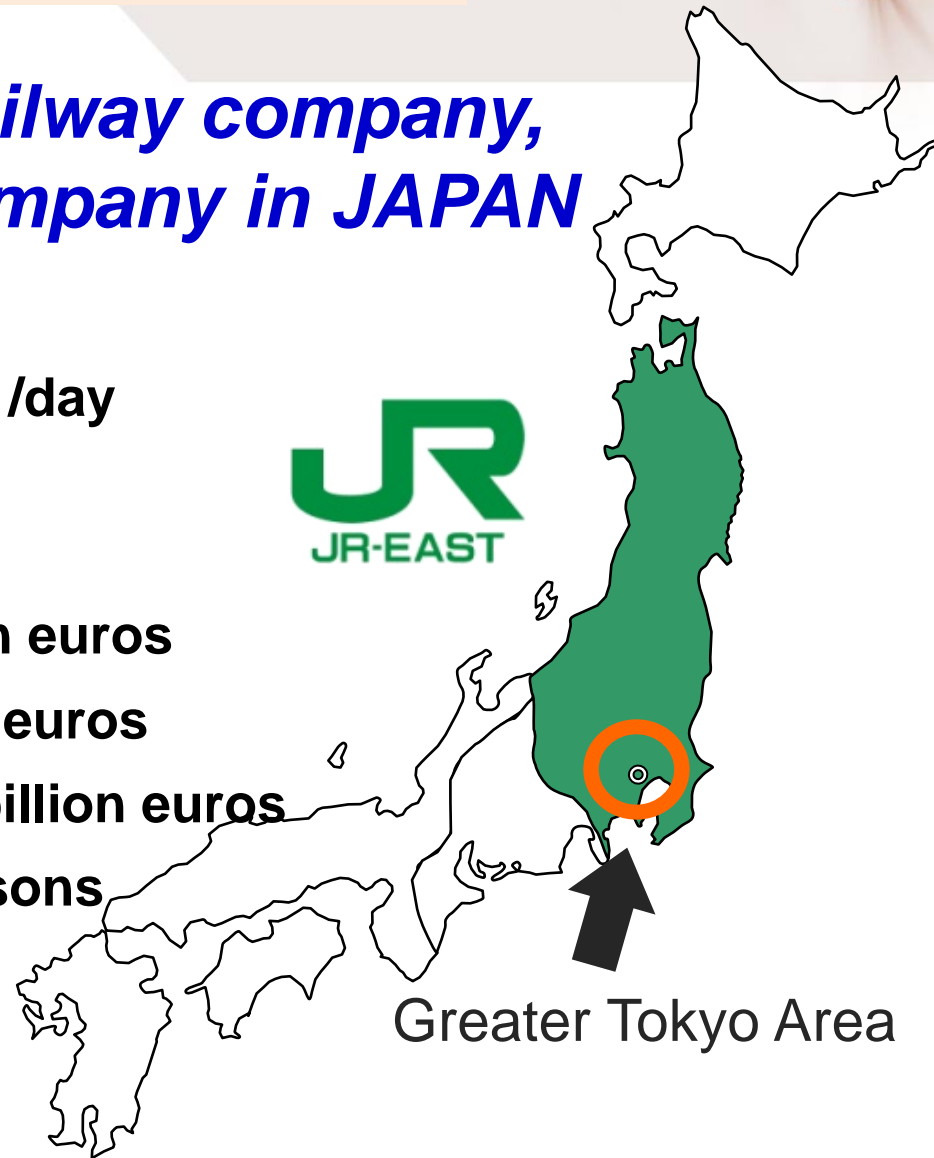
Operating Revenue: 18,40 billion euros

Net Income: 1,29 billion euros

Total Stock Market Value: 19,69 billion euros

No. of Employees: 59,240 persons

- No subsidies from the government



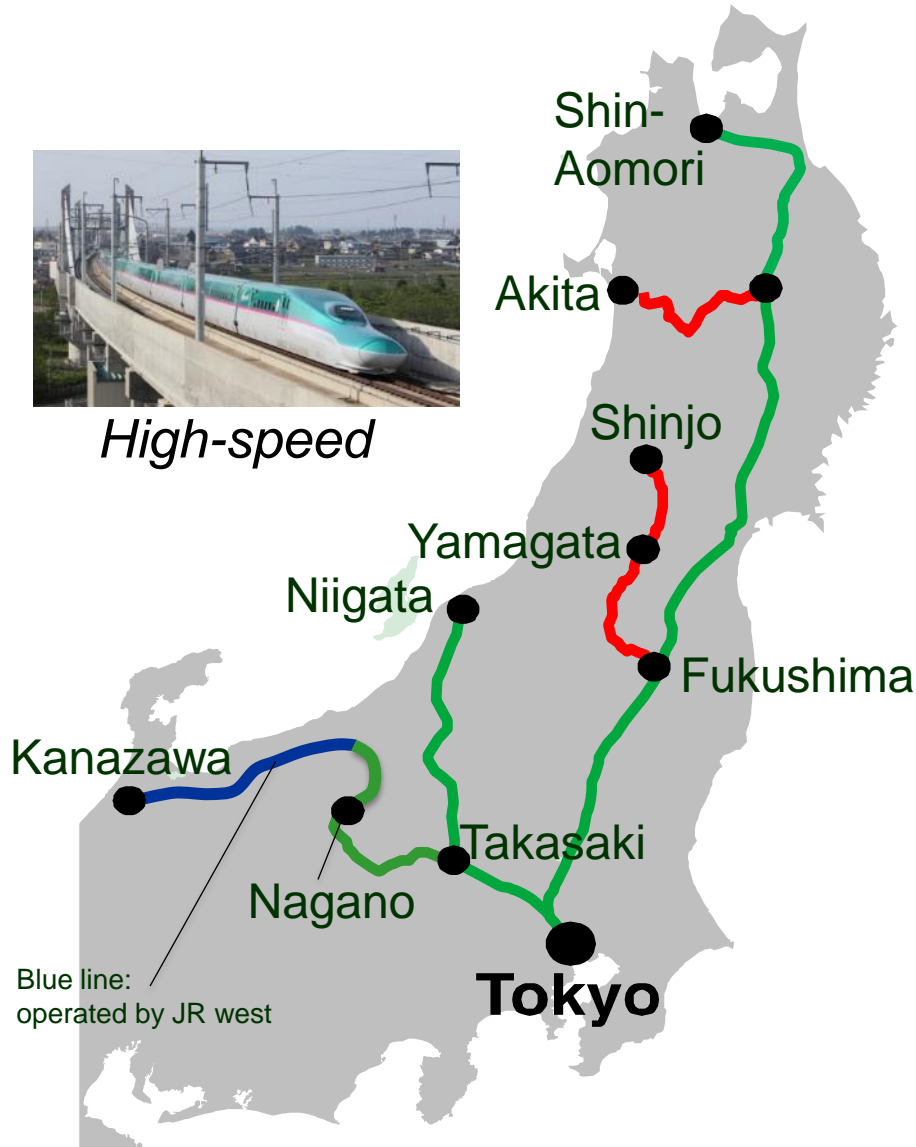
Greater Tokyo Area

*Numbers are as of FY ended March 31 , 2015
1euro = 140 yen

JR East's Shinkansen Network



High-speed



Very exceptional in Japan
5 directional network from Tokyo

▶ **Network: 1470km**

- Dedicated Shinkansen line:
1,194 km
- Gauge-converted conventional lines:
276 km

▶ **No. of Passengers:
278,000 /day**

▶ **No. of Trains:
337 to 415 /day**



Compositions of Shinkansen Station



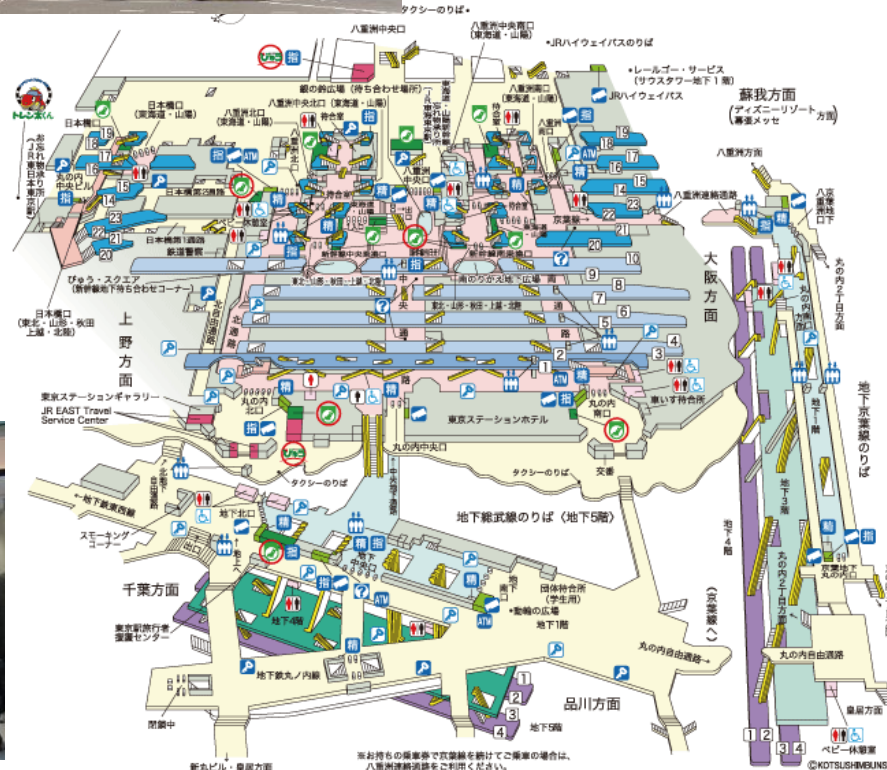
Ex. Tokyo Station



- >Passengers : 418.184 passengers/day
(as Shinkansen: 72.850 passengers/day)
- >Income: 278.294 million yen/day
(No.1 in all JR East's stations)



Shopping area



Concourse



Art museum



Platform for commuter train

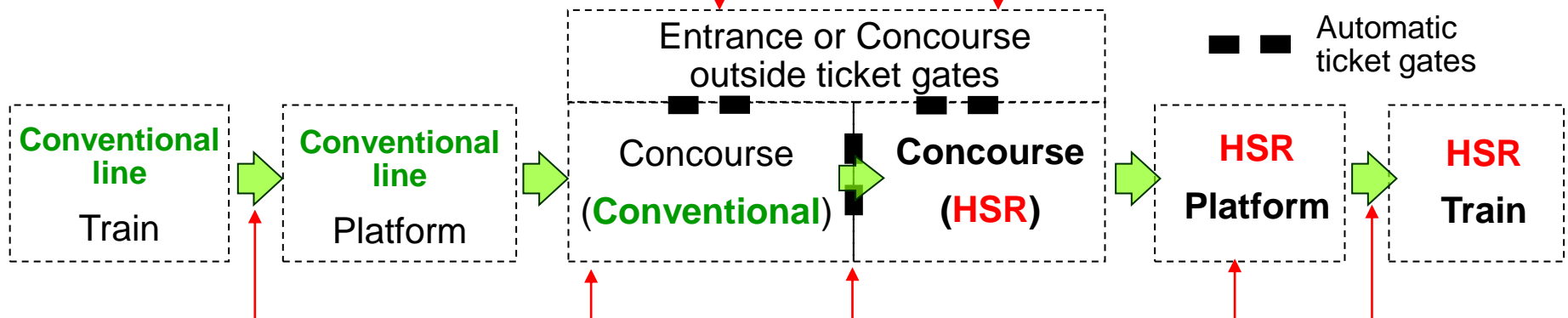
Compositions of Shinkansen Station



The way for Shinkansen's platform

Passenger has to pass 2 gates to Shinkansen platform

Passenger flow

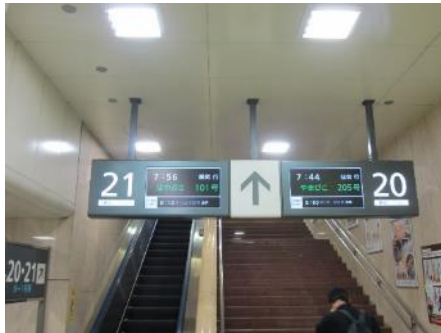


Compositions of Shinkansen Station



Ex. Tokyo Station before Shinkansen's platform

Facilities for passenger



Departure information board



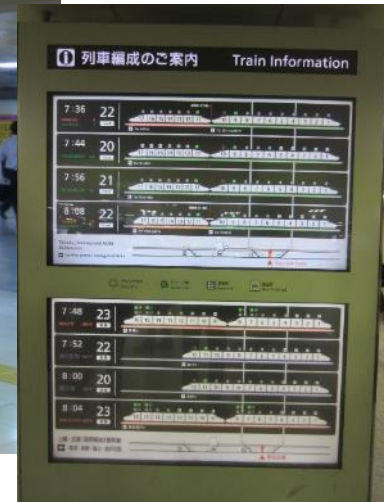
Stop Stations information board



Gate



Main Concourse



Train Information board

Compositions of Shinkansen Station



Ex. Tokyo Station on Shinkansen's platform

Facilities for passenger



Signs for passengers



Signs for lines of passengers



Shinkansen's Platform



Smoking Room



KIOSK



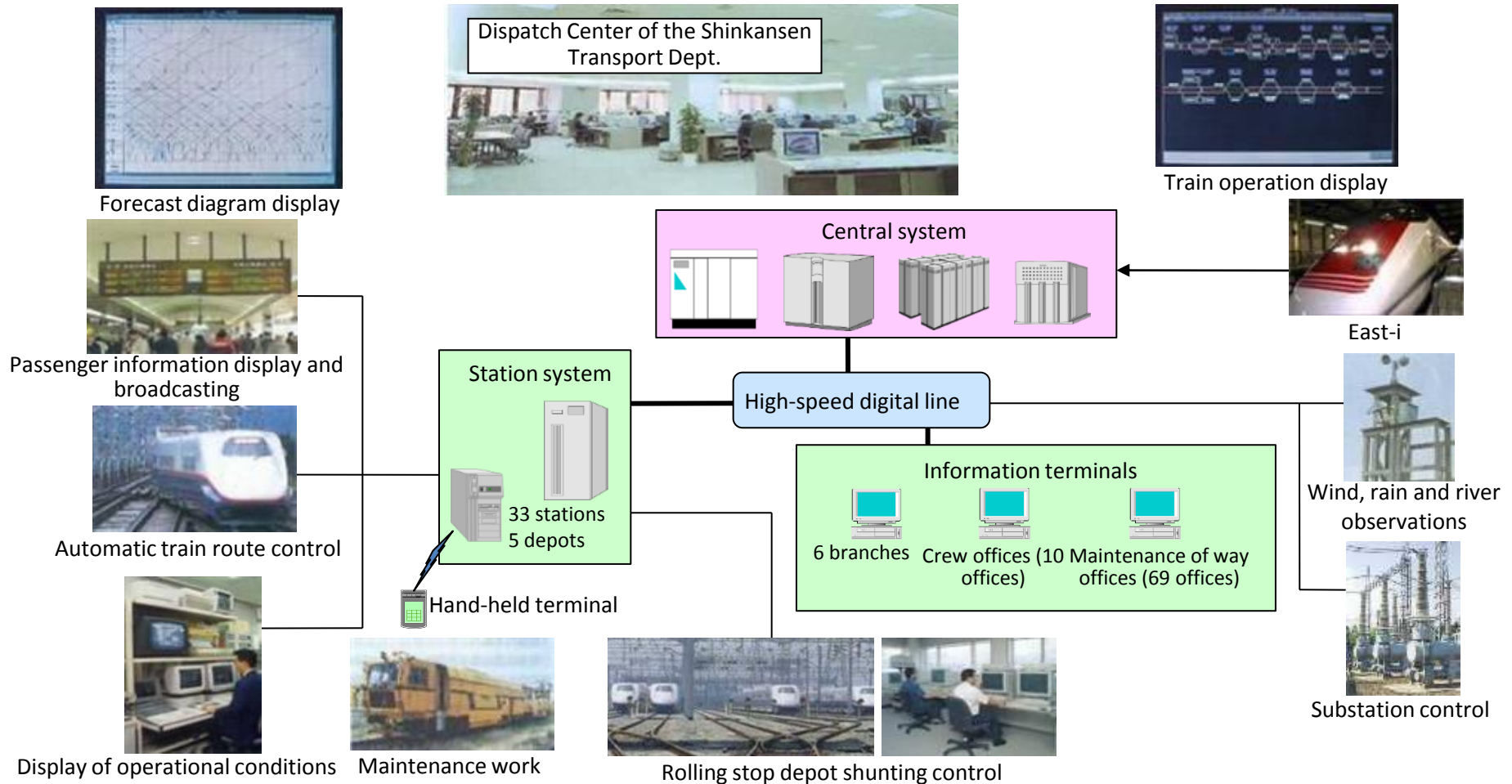
Lunch box shop

Compositions of Shinkansen Station



New Comprehensive Shinkansen System (COSMOS)

The COSMOS system incorporates the latest computer and communications technology to comprehensively systematize all work, including train and crew allocation for the Tohoku, Joetsu and Nagano Shinkansen lines, train operation control, and maintenance and management of rolling stock, tracks, and electric, signaling and communication systems.



Compositions of Shinkansen Station



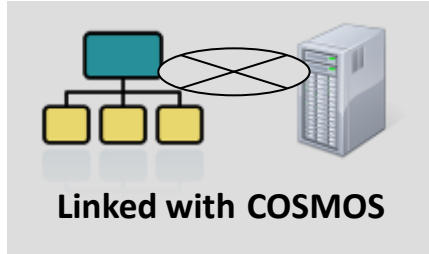
Passenger Information System



Trainset information



Station where stopped



Linked with COSMOS



Platform level



Near stairs



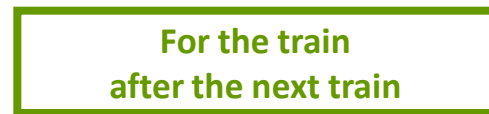
Near train entrance



Concourse level



For the next train



For the train after the next train



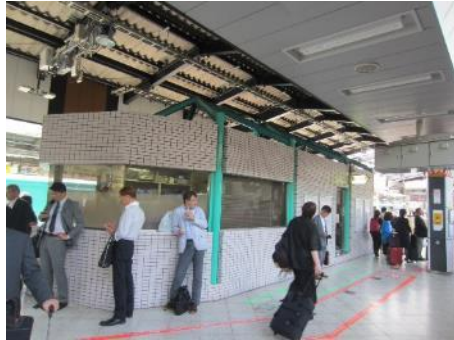
Waiting passengers' positions

Compositions of Shinkansen Station



Ex. Tokyo Station on Shinkansen's platform

Facilities for staff



Station Staff room



Shinkansen's Platform



Lift for staff



AED

Signal for cleaning staff



Stop sign for driver

Telecommunication for staff
"Tele Speech"



Compositions of Shinkansen Station



Ex. Tokyo Station on Shinkansen's platform

Facilities for cleaning staff



Shinkansen's Platform



Why cleaning staff's office exists under the platform?

In the Past, Supply water for restaurant car and receiving rubbishes



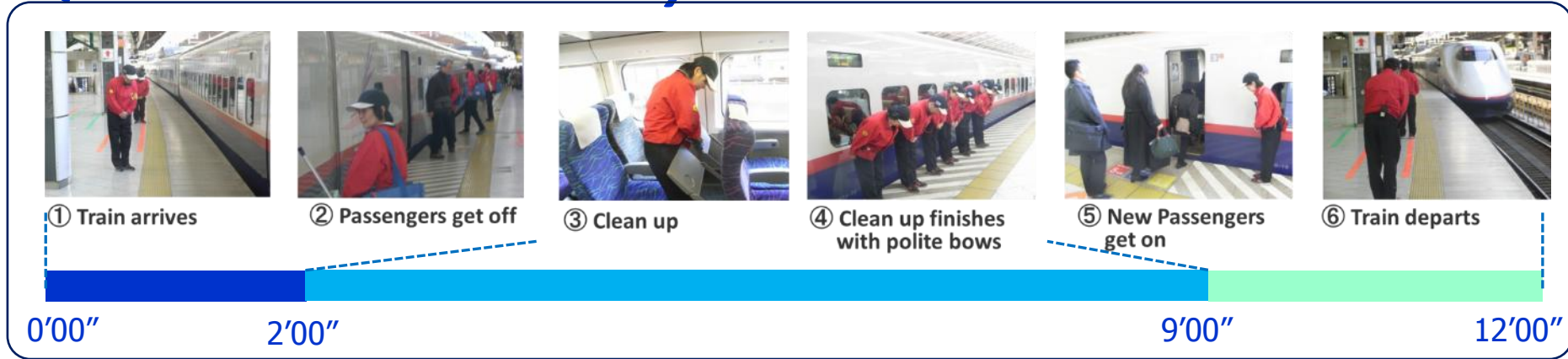
Compositions of Shinkansen Station



Ex. Tokyo Station on Shinkansen's platform

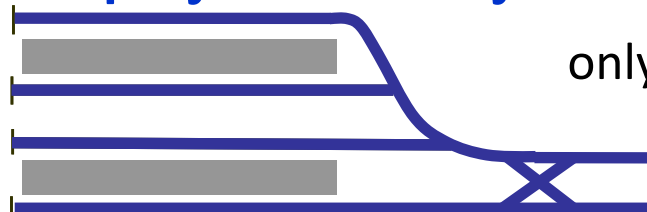
Working style of cleaning staff

Quick turnaround at Tokyo terminal station



With a 12-minute turnaround, we can

- ✓ provide very frequent service (**large capacity**)
4 minute headways
- ✓ with minimum train sets => *Minimum train sets*
- ✓ simplify station layout and infrastructure



only 2 platforms with 4 tracks

=> *Minimum infrastructure*



Compositions of Shinkansen Station



Ex. Shin-Aomori Station

>Passengers : 4.850 passengers/day
 >Income: 11.497 million yen/day



Shinkansen's Gate



Concourse

東京方面
For Tokyo



Platform of conventional line



Waiting room for Shinkansen



Shopping area

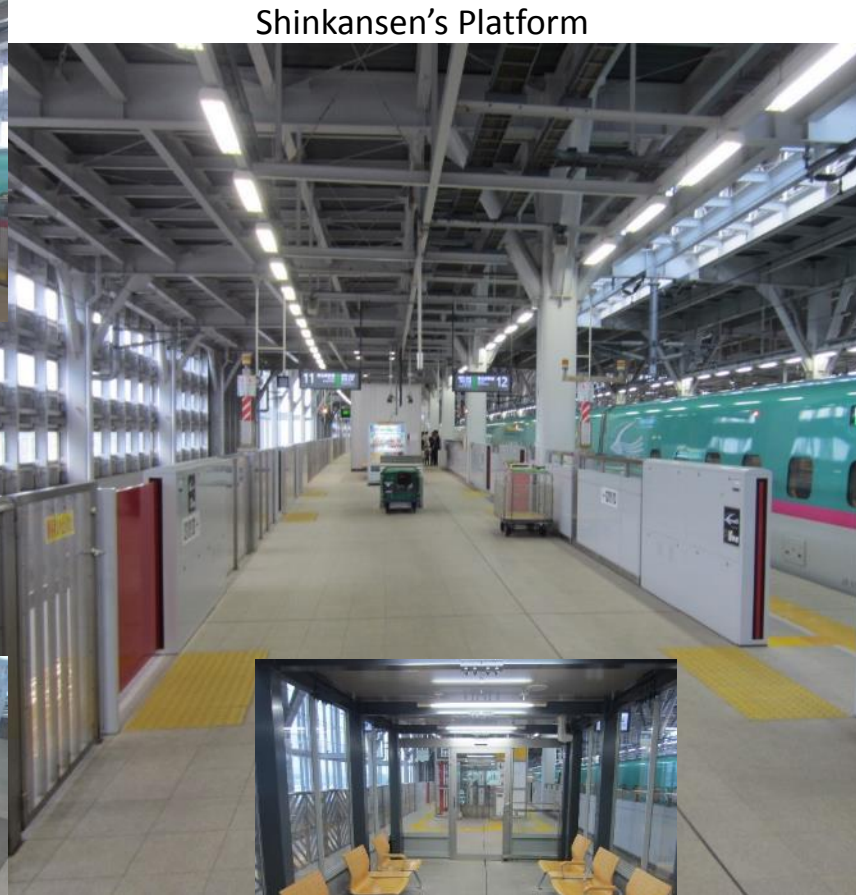
Compositions of Shinkansen Station



Ex. Shin-Aomori Station Facilities for passenger



Smoking Room



Shinkansen's Platform



Signs for passengers



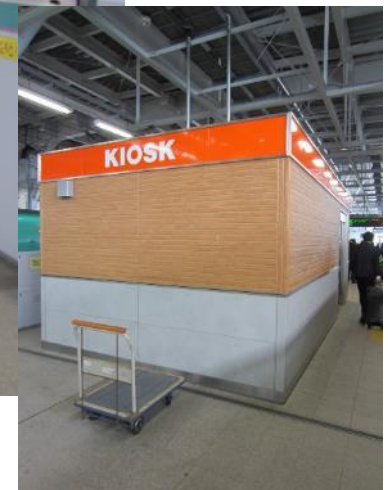
Lift



Bench & slot machine



Waiting room on Shinkansen's Platform



KIOSK

Compositions of Shinkansen Station



Ex. Shin-Aomori Station

Facilities for staff



Control box for home door



Emergency train stop button



Monitor for station staff



Station Staff's room



Signal for cleaning staff



Lift for staff



Handcart for sales aboard Shinkansen



Development around the Shinkansen Station



How to increase passengers in the local Shinkansen Station?

✓ Trying to Make attractive places around the Shinkansen Station

Ex. Aomori Station It's close Shin-Aomori Station



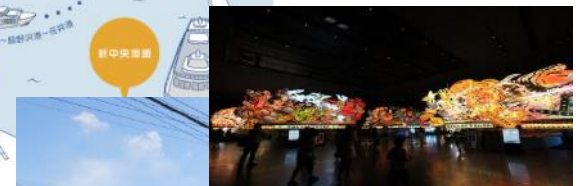
Memorial train on ferryboat (Formerly Aomori-Hakodate ferry line)



“A Factory”
(Souvenir in Aomori special products)



Museum of Summer festival in Aomori, “Wa Rasse”



Development around the Shinkansen Station



How to increase passengers in the local Shinkansen Station?

✓ Trying to Make attractive places around the Shinkansen Station

Ex. Itoigawa Station Hokuriku Shinkansen operated by JR West



Itoigawa Station



Facilities for children and travel information center

Facilities for Train fan in the station

✓ The place for community and travelers

Economic effects of Shinkansen's Station



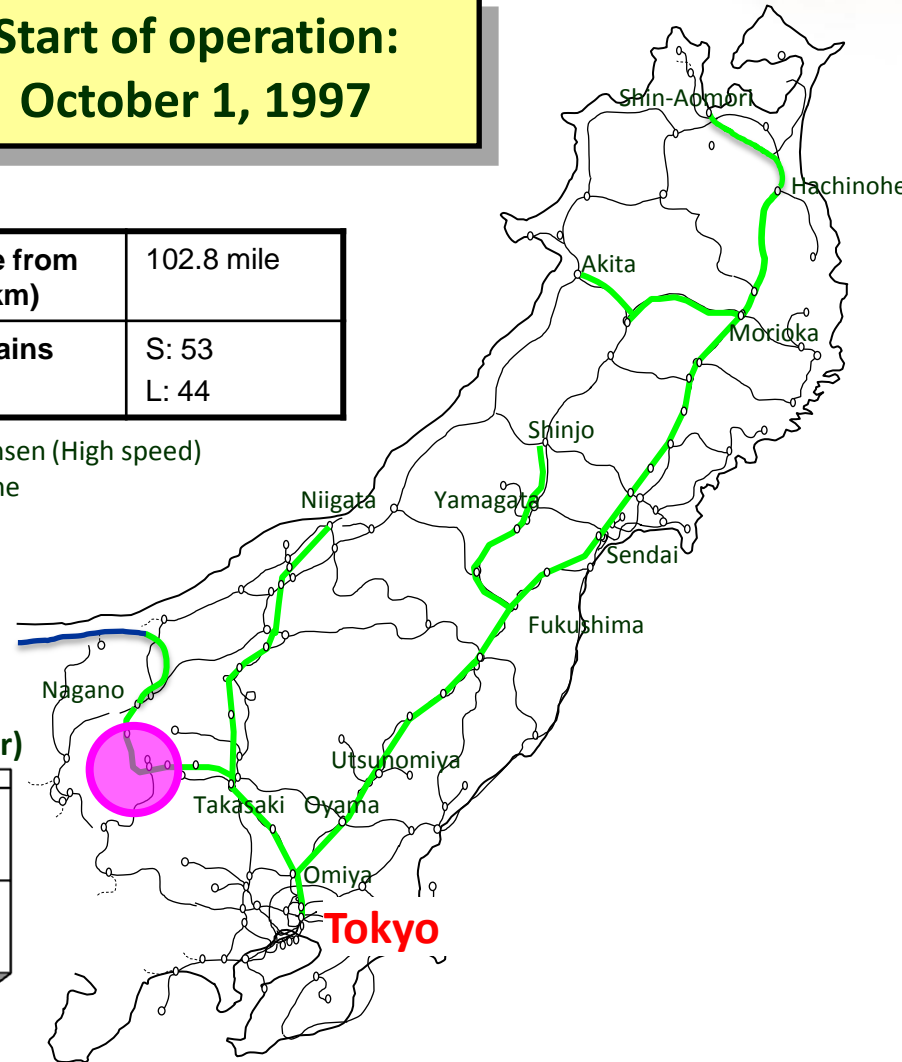
Ex. Sakudaira Station 〔Hokuriku Shinkansen〕



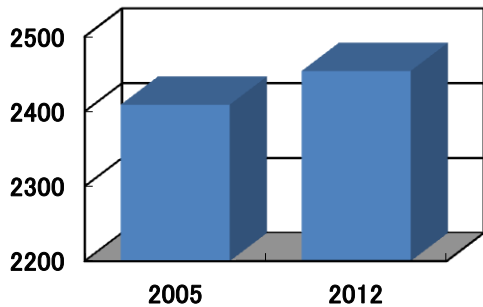
**Start of operation:
October 1, 1997**

Distance from Tokyo (km)	102.8 mile
No. of trains per day	S: 53 L: 44

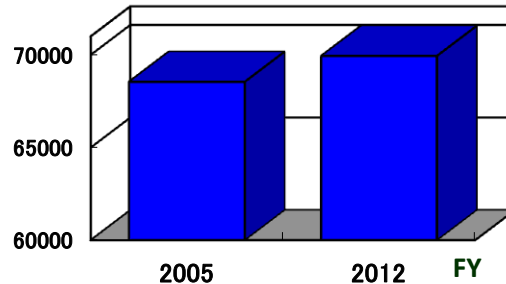
S: Shinkansen (High speed)
L: Local line



Number of Shinkansen Passengers (per day)



Population growth Saku city (area before the merger)

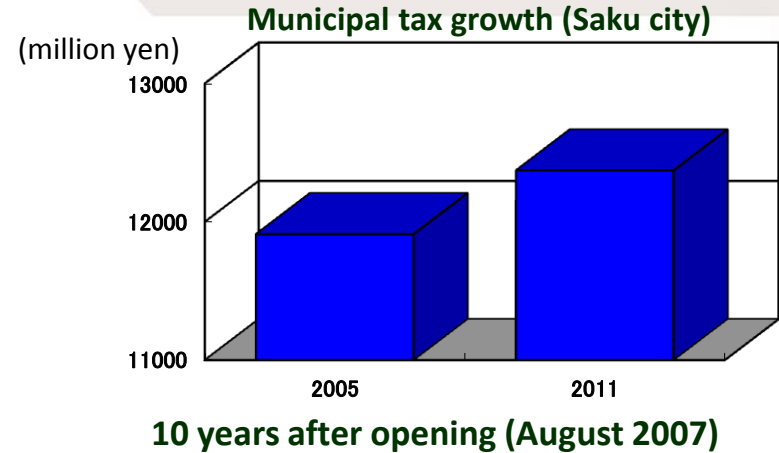
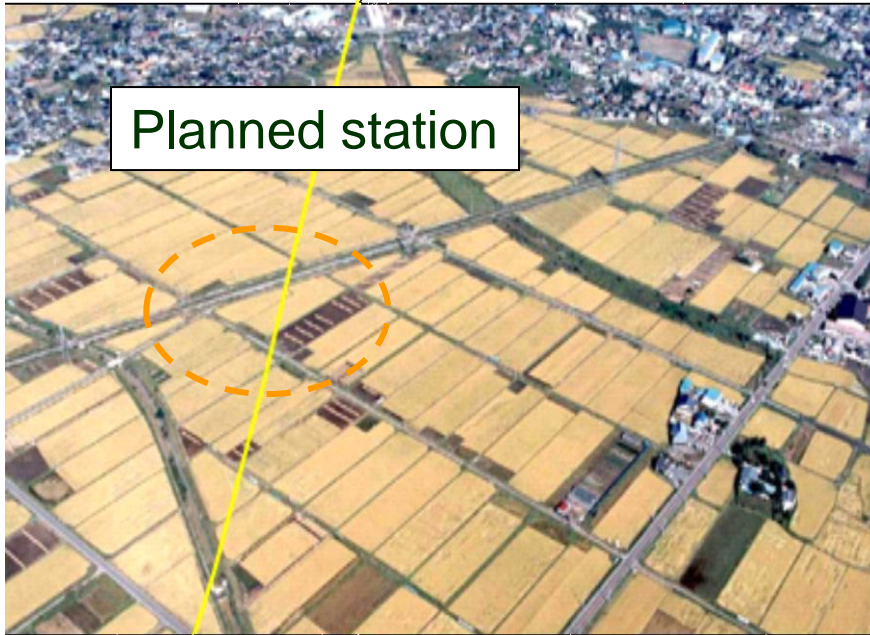


Economic effects of Shinkansen's Station

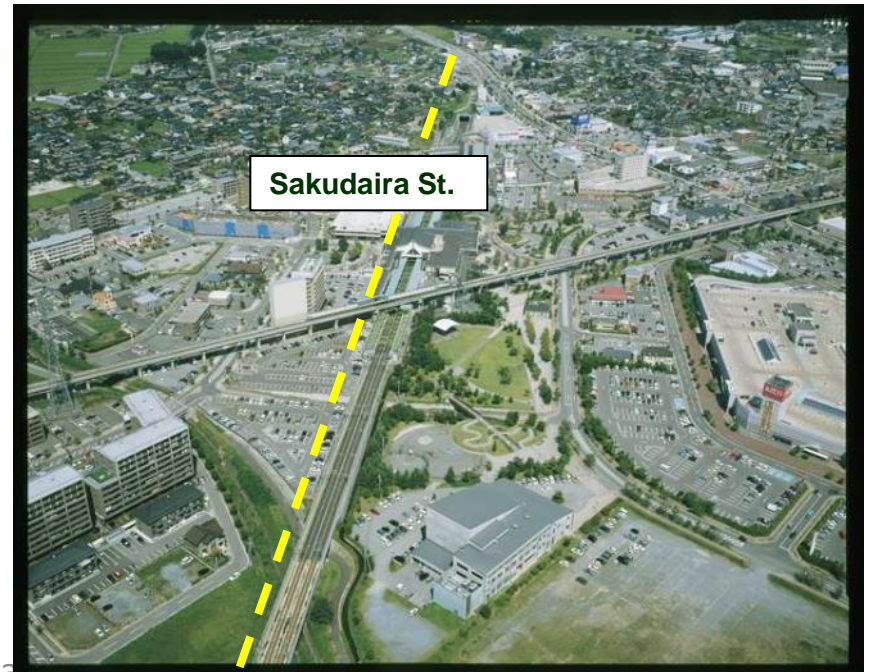
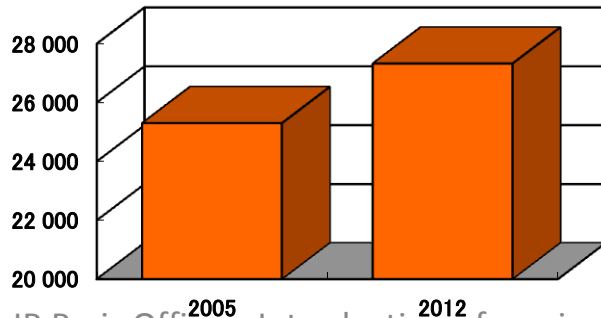


Development around Sakudaira Station

Before the hokuriku shinkansen starts



Householder growth
Saku city (Area before the merger)



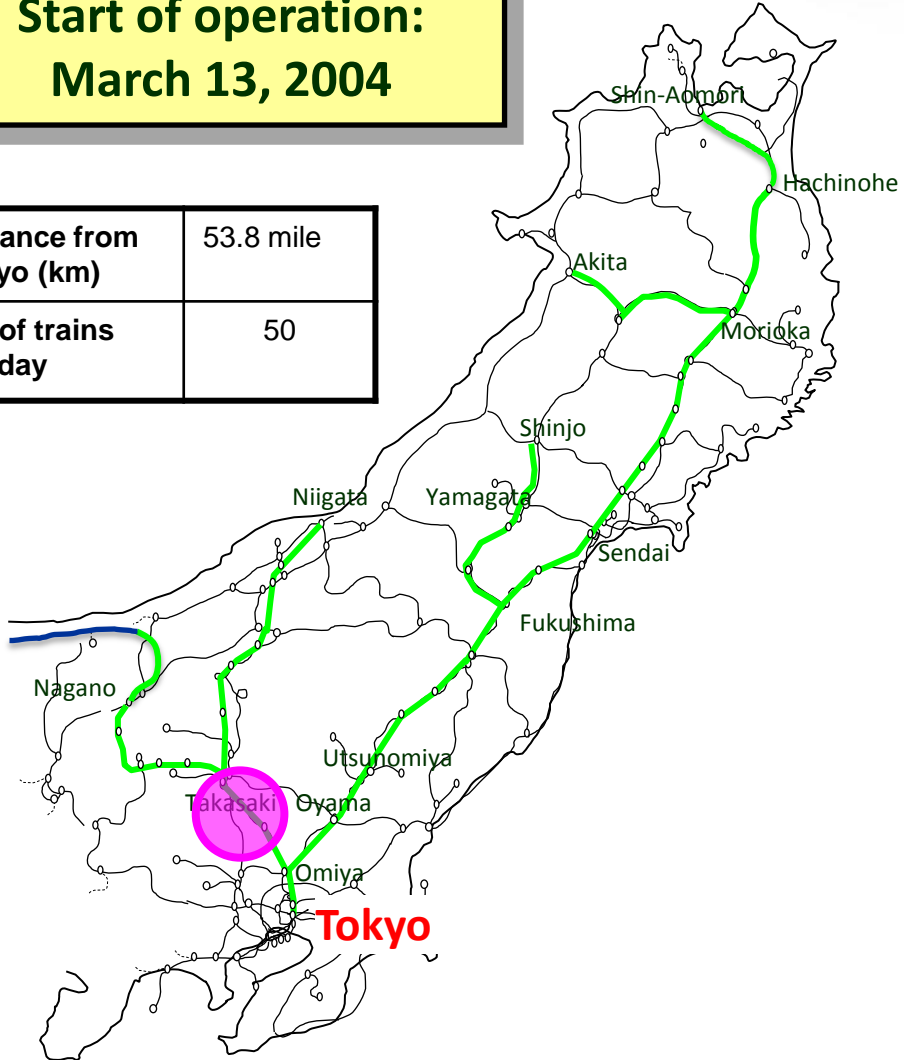
Economic effects of Shinkansen's Station



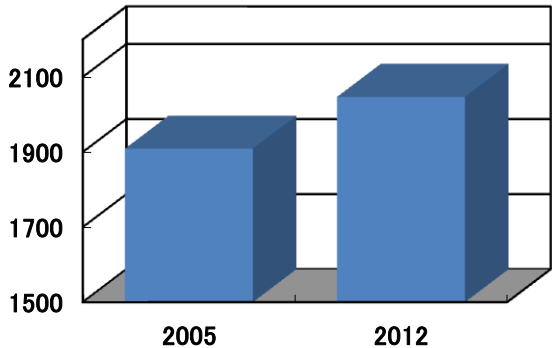
Ex. Honjo Waseda Station [Joetsu Shinkansen]

**Start of operation:
March 13, 2004**

Distance from Tokyo (km)	53.8 mile
No. of trains per day	50



**Number of Shinkansen Passengers
(per Day)**

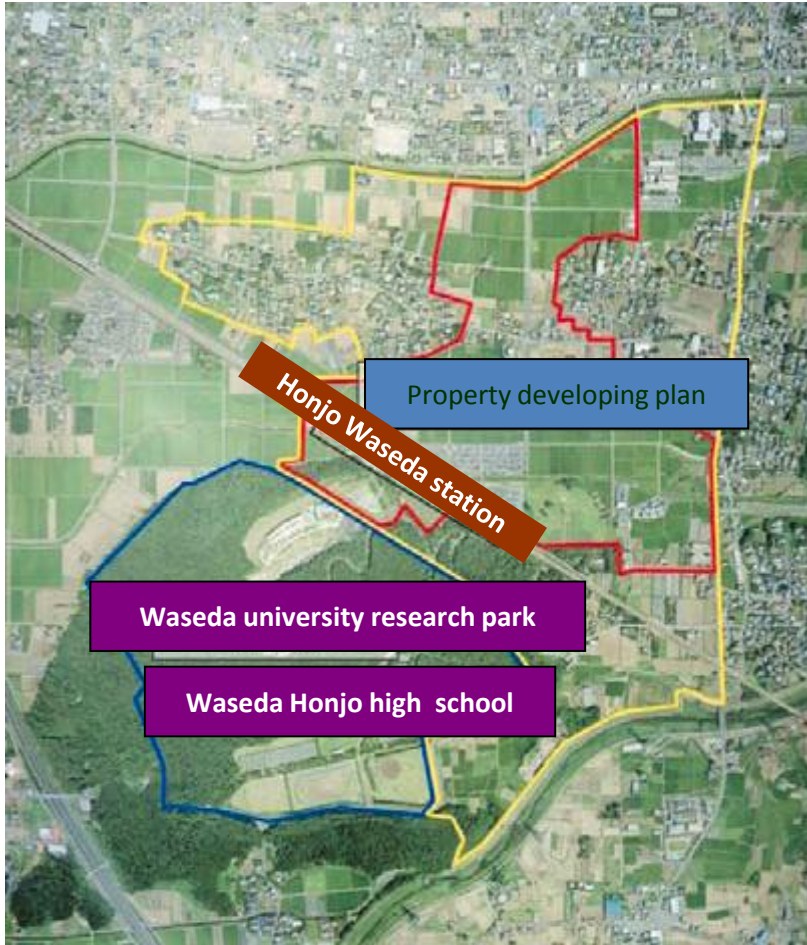


Economic effects of Shinkansen's Station



Town management of Honjo Waseda

New Town design



Waseda university research park



Park & Ride

THANK YOU

MERCI

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