



Railways in Japan

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JNR Reform in 1987

6 Passenger JRs

+

1 Freight Company



JR Freight

Access to the
Tracks

JR West

JR Hokkaido

JR East

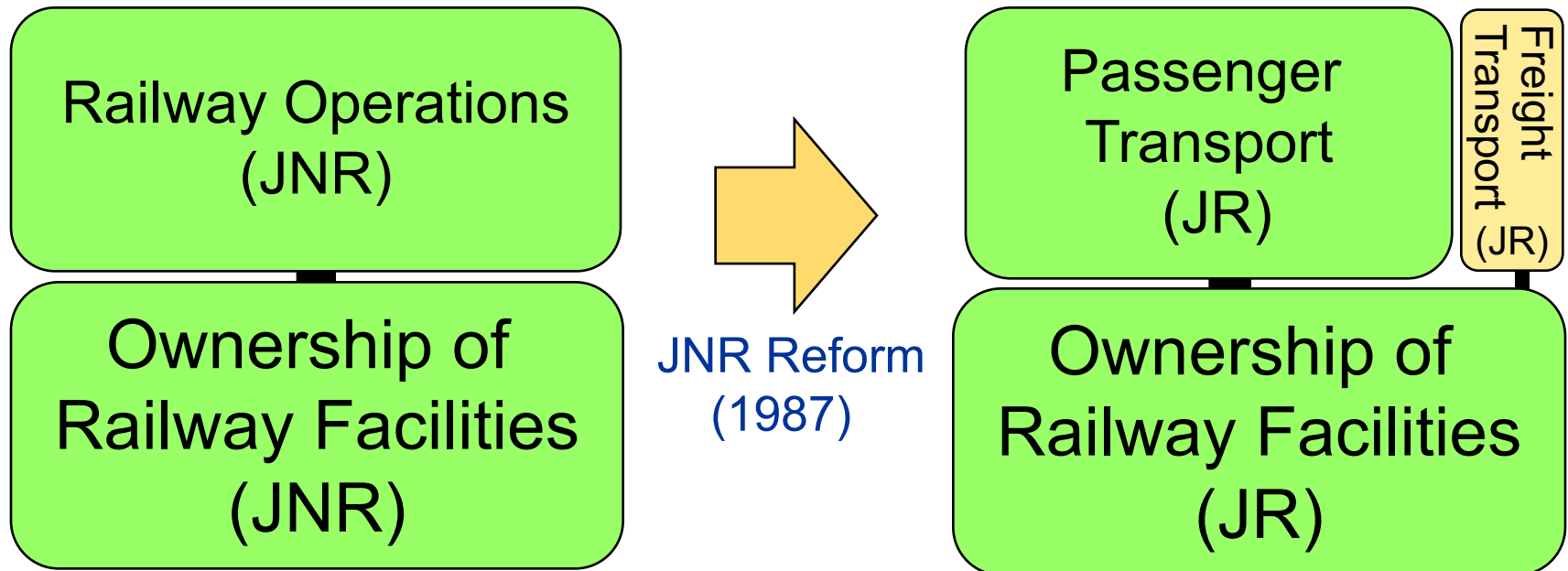
JR Central

JR Kyushu

JR Shikoku

Vertical Integration in JR Passenger Companies

- ✓ 6 passenger JRs manage railway operations and own railway facilities.
- ✓ Only freight is separated.



Three Major Types of Railways in Metropolitan Areas

1) JR Lines



2) Metros



3) Private Railways



Next slide explains how private railways could expand their network without public funds.

Metropolitan areas have some types of railway operators, such as JRs, Metros, and private railways.

3) Private Railways

Reason why private railways could extend the lines without public funds

Kobayashi Ichizo model

Private railway company

Responsible for both projects

<Business 1>
Railway Construction

<Business 2>
Land Development

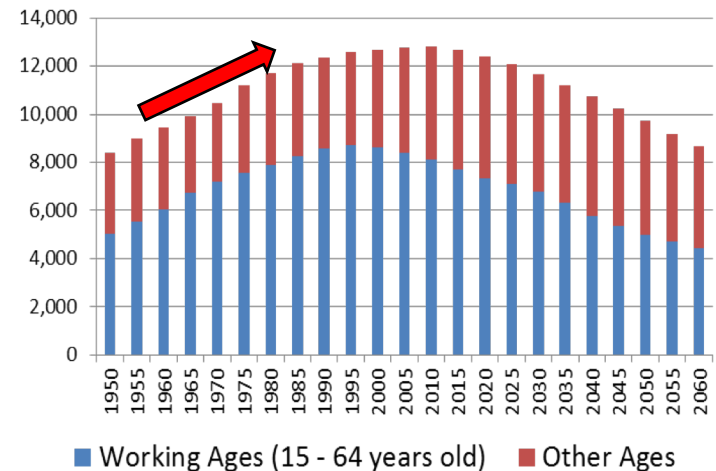
Integrated Development

The company could earn from both businesses.

✓ Affiliated businesses cover a large share of the revenue to private urban railways.

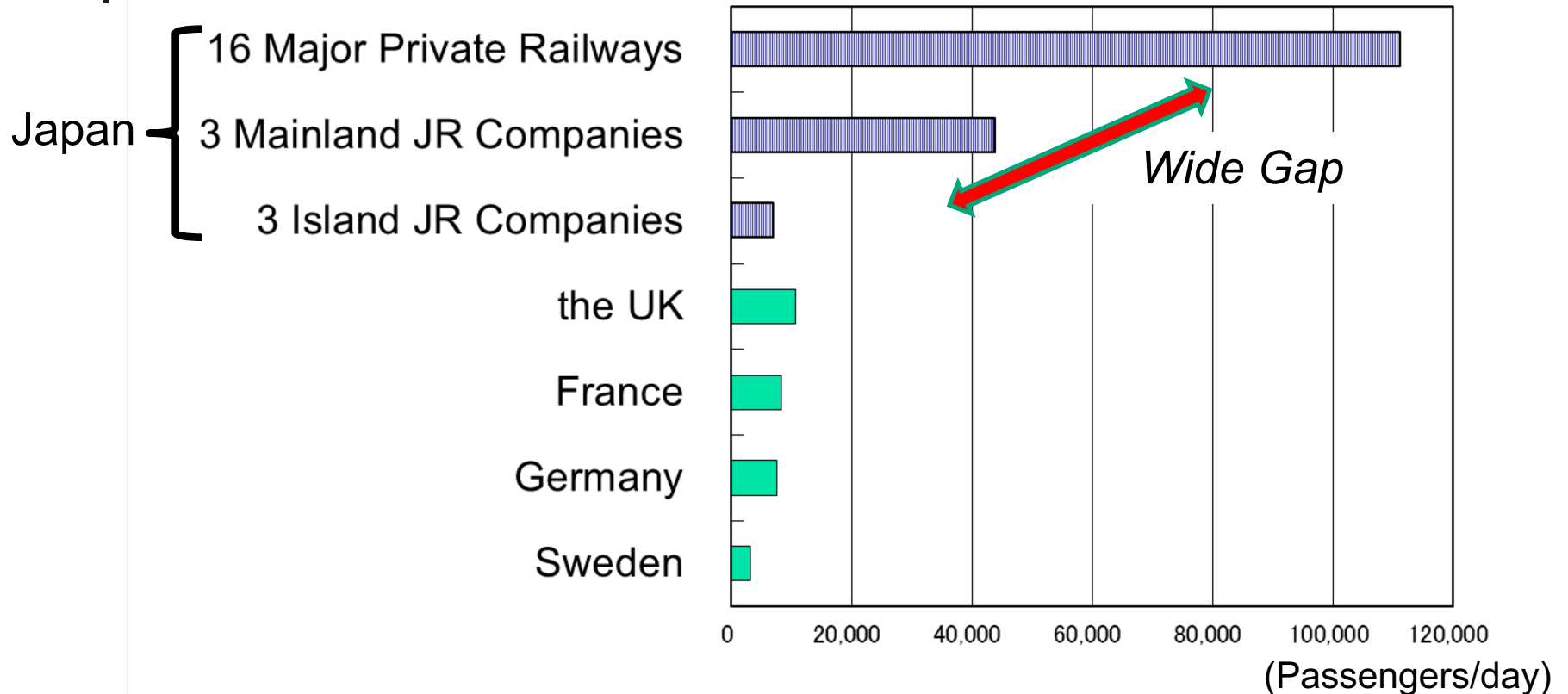
<Background>

The land price increased because of rapid population increase and urbanization.



Transition of population in Japan

Transport Market in Japan



Passenger transport density* is so different within Japan.

* Passenger Traffic Density = Transport Volume (Passenger km) / (Operating Line Length × Operating Days)



Japanese Passenger Railways

Classification	No. of Companies
JR companies	6
Major private railway companies	16
Semi-major companies	5
Public authorities	10
Mid-to-small private railway companies	136
Monorail, new transit systems, cable railways, etc.	33

Source: MLIT (2019)

Most railways maintain an integrated structure.

But, more than half of mid-to-small private railway companies are suffering from **a deficit** even before the pandemic.

Characteristics of Railway Operation in Japan (1)

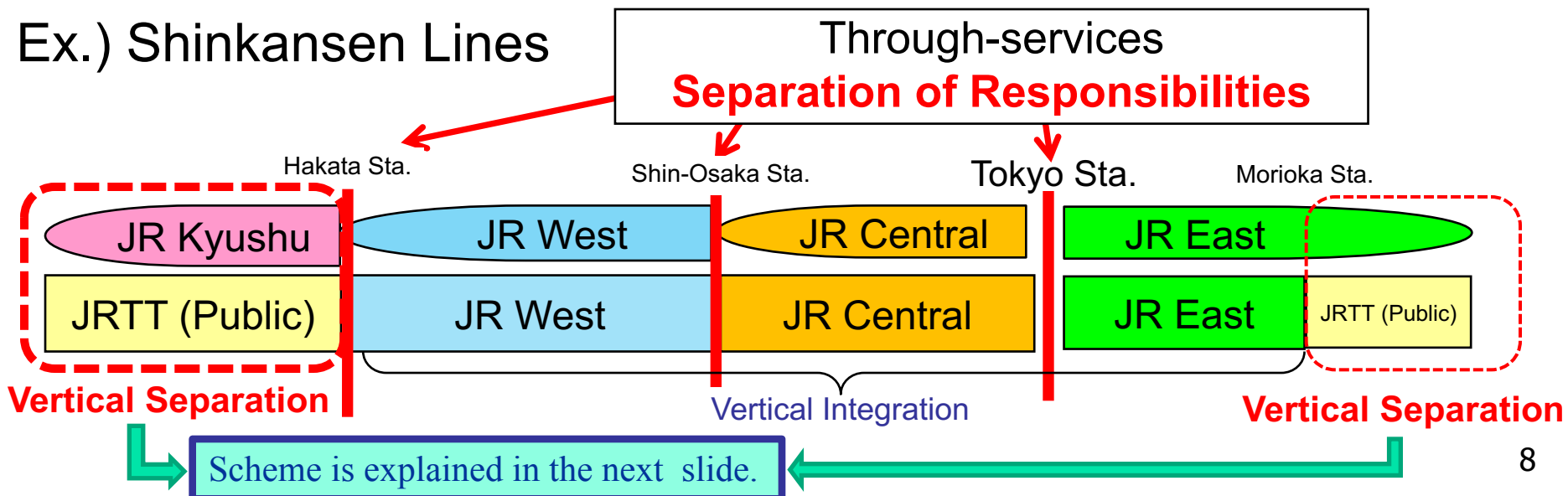
Each rail company operates on its track

Philosophy for Safety:

Separation of responsibilities at the border station

→ This philosophy is applied to all the reciprocal through-services in Japan such as: 1) JR & JR; 2) JR & Metro; 3) Private & Metro; 4) Other cases

Ex.) Shinkansen Lines



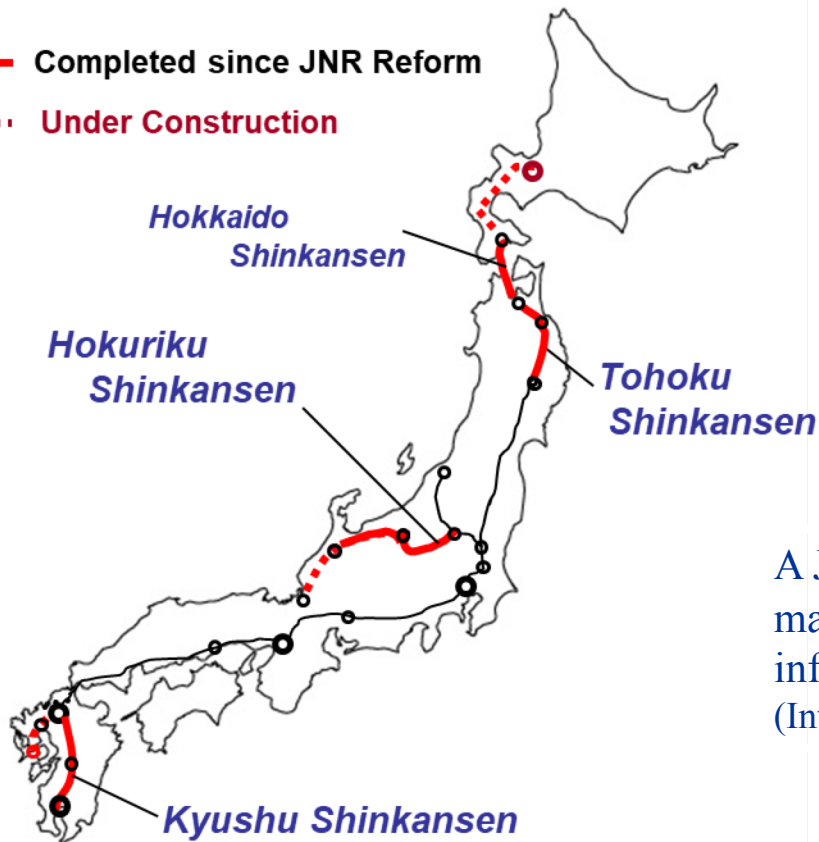
Construction by Vertical Separation

e.g. New Shinkansen Lines

<New Shinkansen Lines>

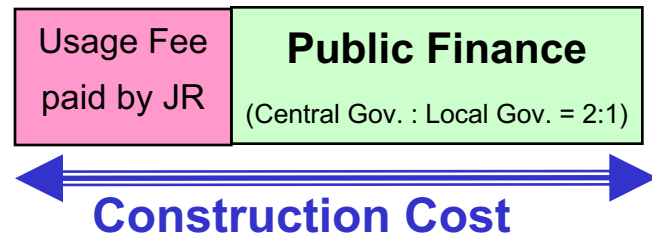
— Completed since JNR Reform

..... Under Construction

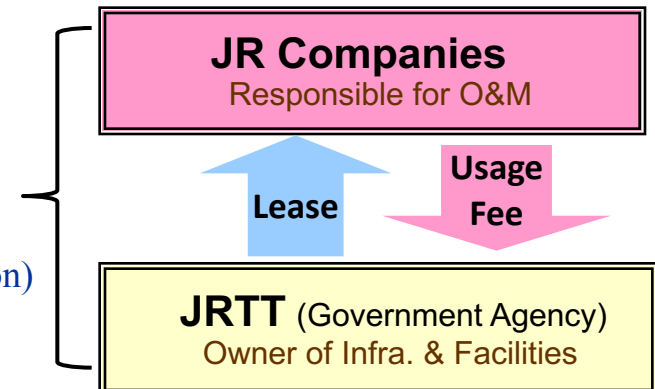


A JR Company
manages the
infrastructure.
(Integrated Operation)

1. Construction: Public Works

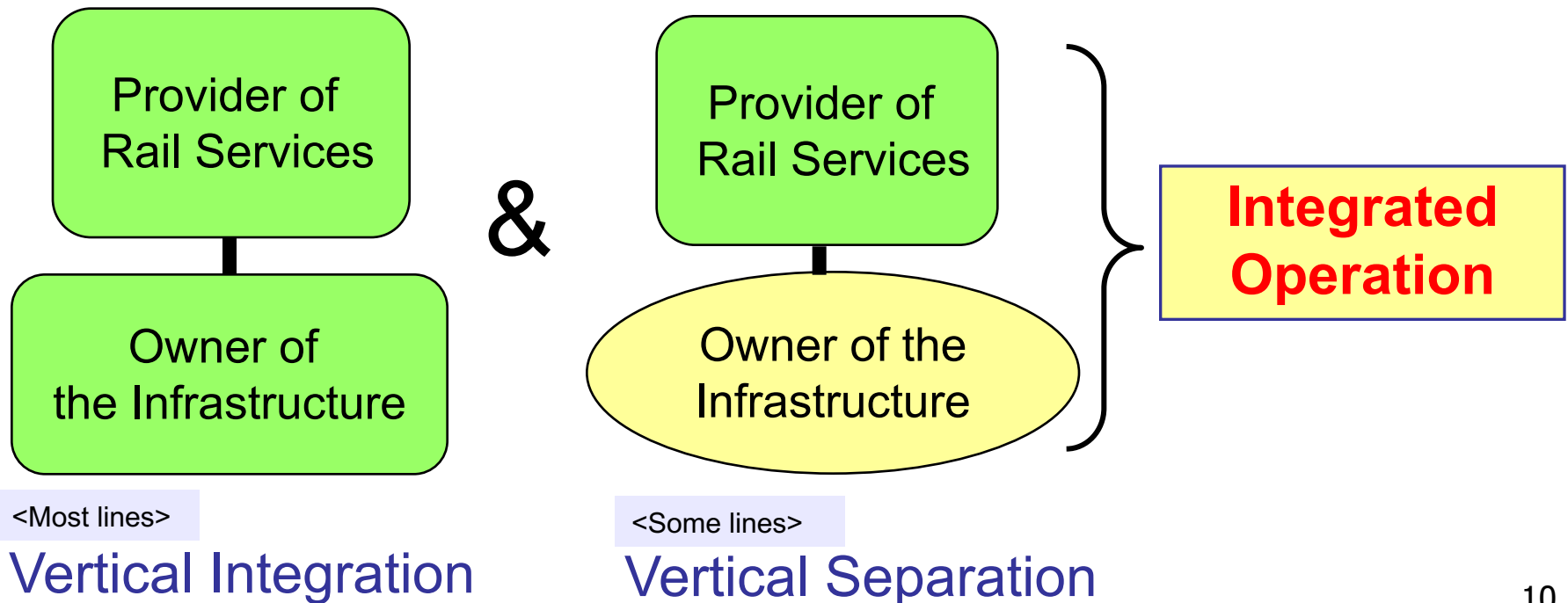


2. Ownership: Vertical Separation



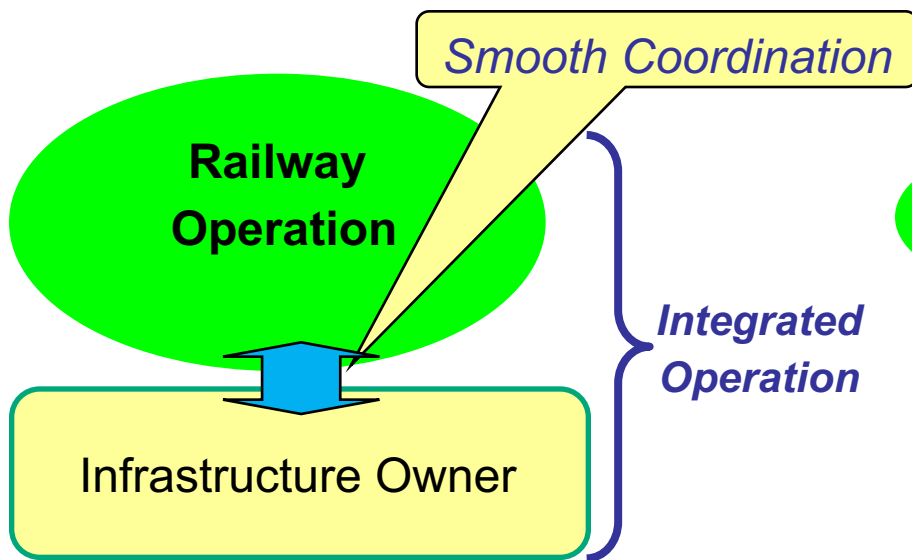
Vertically Integrated Operation

On each section, a single operator is responsible for the railway operation.



Comparison of Railway Operation

Japan

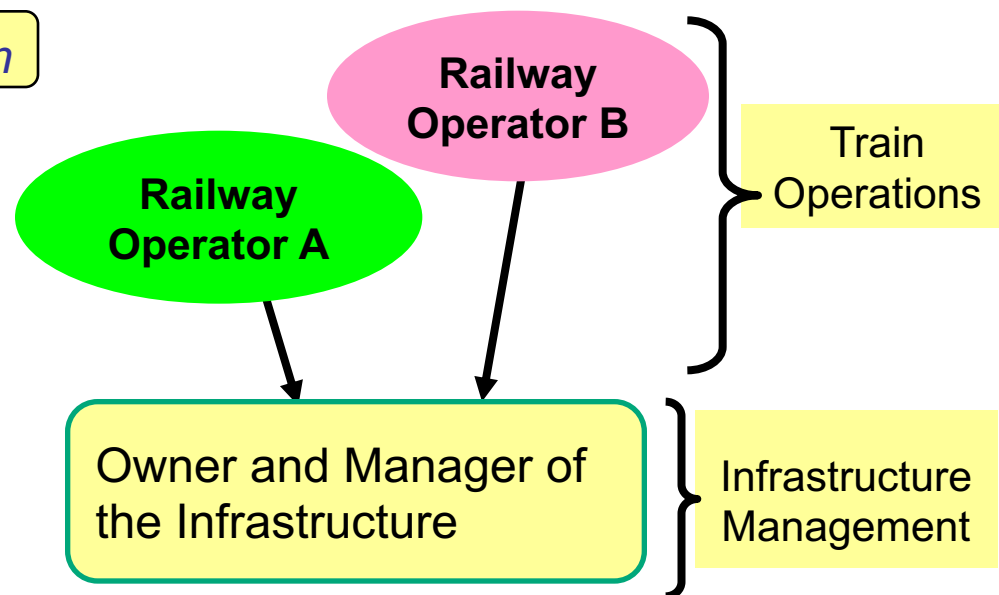


<Most lines>
Vertical Integration

<Some lines>
Vertical Separation

*Ownership of
infrastructure varies*

EU Countries



Vertical Separation

Direction aimed by EU policy



Competition in Japanese Passenger Railways

- | | |
|-------------------------------------------------------|---------------|
| 1) Competition with other modes of transport | Yes |
| 2) Competition between the tracks | Yes |
| 3) Yard-stick competition / Profitability competition | Yes |
| 4) Competition for the Market (Competitive Bidding) | Little |



✓ *Rail companies can keep an **integrated operation**.*

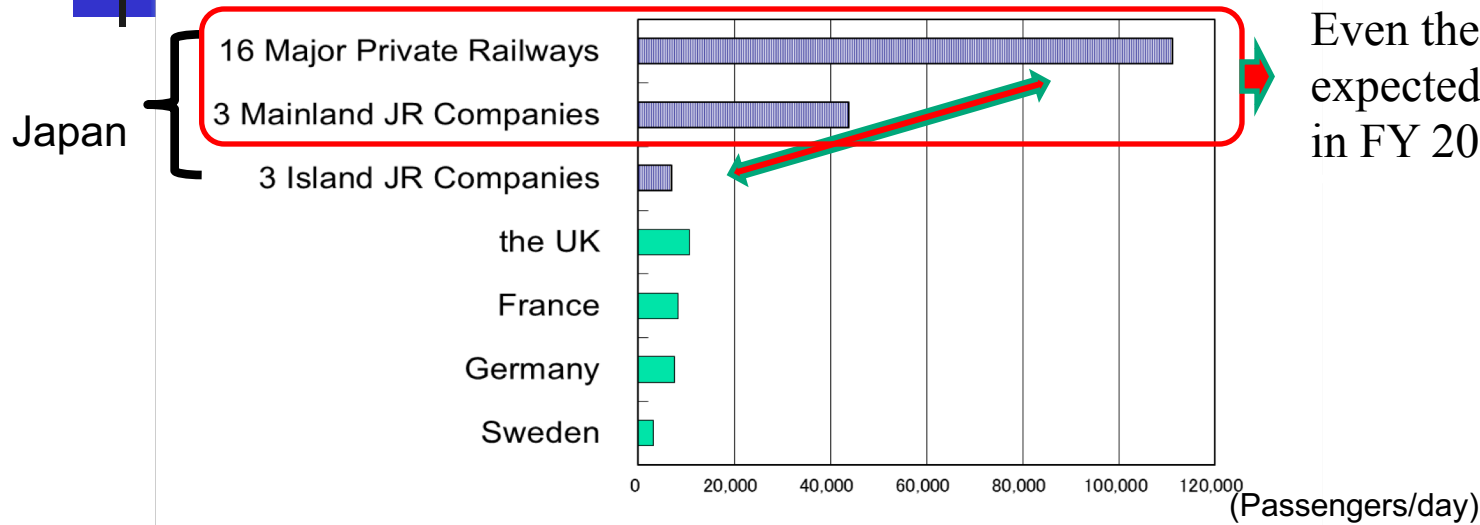
Characteristics of passenger railway operation in Japan

- | | |
|-----------------------------------------------------------------|-----------|
| 5) Competition in the Market (Open Access/On-track Competition) | No |
|-----------------------------------------------------------------|-----------|



✓ *Rail operation must be **separated**.*

Challenges facing COVID 19 Pandemics



Even these railways are expected to fall in deficit in FY 2020.

<Most lines>

Provider of Rail Services

Owner of the Infrastructure

+

Certain Public Support?

<Challenges>

Some significant changes might be necessary if pandemics continue for the coming years.

Vertical Integration: Revenue should cover all costs including infrastructure.

Thank you for your attention.

Any Questions?

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