

Transit Oriented Development and Land Value Capture in Japan

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Transport and Tourism (MLIT)**



	Urban Area	Country	Population	Area (km ²)	Population Density (People/km ²)
1	Tokyo – Yokohama	Japan	37,555,000	8,547	4,400
2	Jakarta	Indonesia	29,959,000	3,108	9,600
3	Delhi	India	24,134,000	2,072	11,600
4	Seoul – Incheon	Korea	22,992,000	2,266	10,100
5	Manila	Philippines	21,710,000	1,580	14,400
6	Shanghai	China	22,650,000	3,626	6,200
7	Karachi	Pakistan	21,585,000	945	22,800
8	New York	U.S.	20,661,000	11,642	1,800
9	Mexico City	Mexico	20,300,000	2,072	9,800
10	Sao Paulo	Brazil	20,273,000	2,849	7,100

Source : Demographia, 2014. “Tokyo-Yokohama” includes large areas of Tokyo, Yokohama, Chiba and Saitama prefectures and smaller areas of Gunma, Tochigi and Ibaraki prefectures.

How to guide public and private investment to create a sustainable and livable metropolis?

→The keys are “TOD” and “LVC”!

- 1. TOD / LVC concepts**
- 2. Major instruments in Japan**
- 3. Case studies in Japan**
- 4. TOD in overseas – MLIT's efforts**

What is a TOD model?

TOD (Transit-Oriented Development):

Urban planning principles that promote urban development along transit stations.

Shiodome, Tokyo

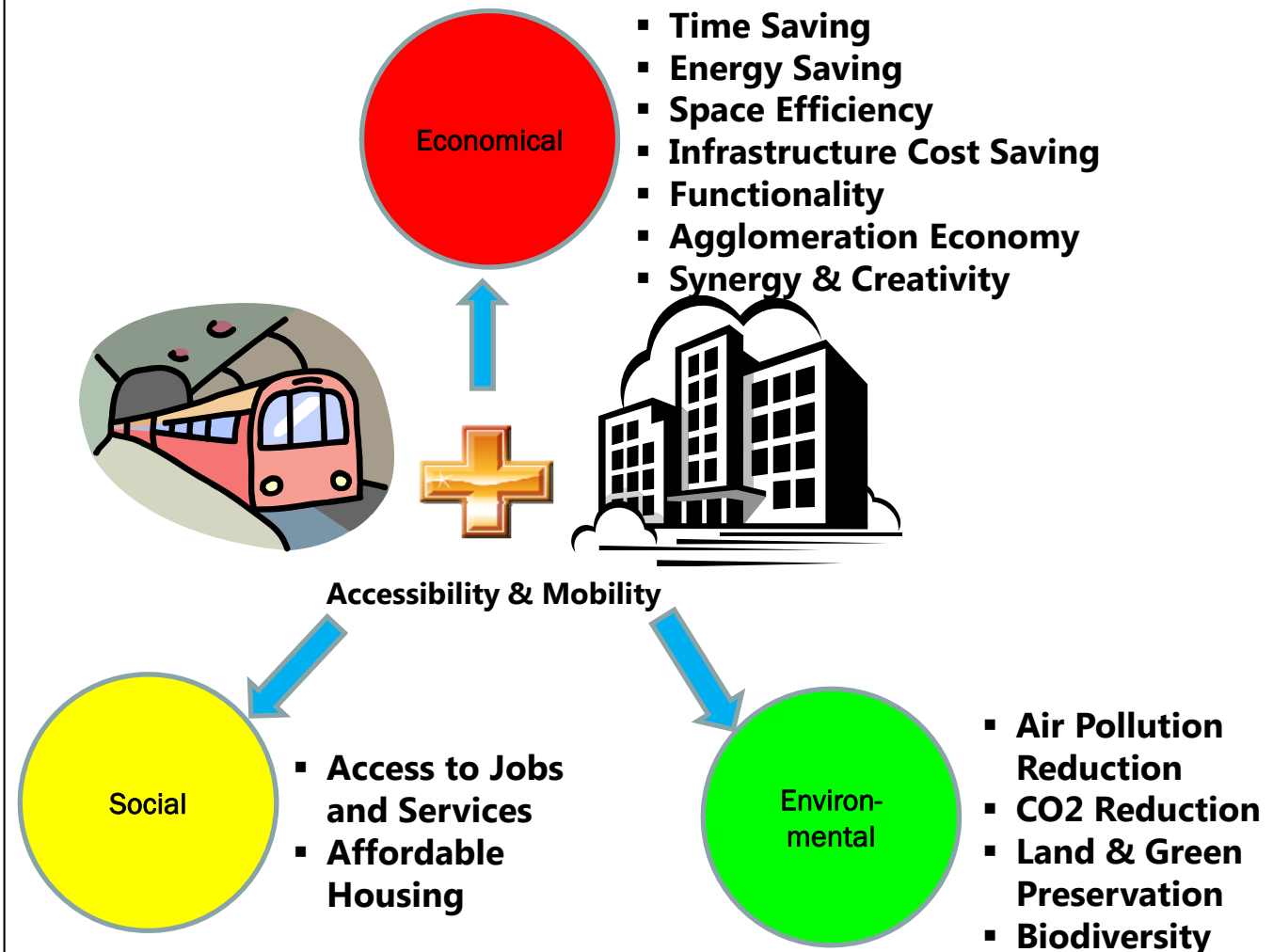


Source: jpri.kyodo.co.jp

Kashiwanoha, Chiba



Source: www.city.kashiwa.lg.jp



Source : Mr. Hiroaki Suzuki

Zoning Map of Toyota City



Source: www.city.toyota.aichi.jp

Tokyo Metropolis as Walk-able Urban Cells with Stations



Source: Nikken Sekkei Ltd.

Development of Railway Network in Tokyo Area

1950

Railway	
Route Length (km)	1,478 (100)
Passengers Carried (million/year)	2,258 (100)

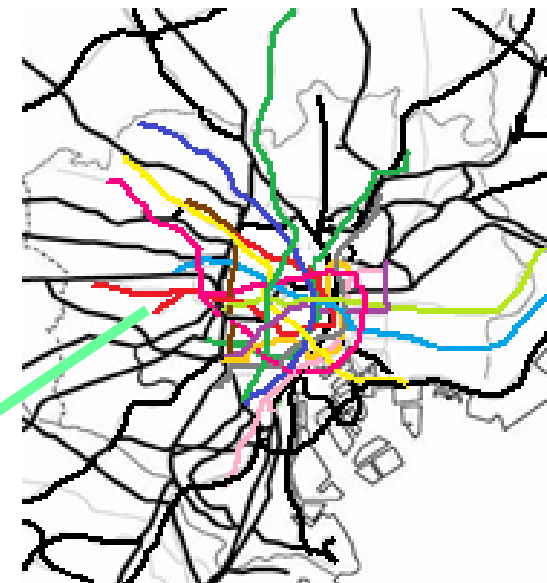


2000

Railway	
Route Length (km)	2,229 (151)
Passengers Carried (million/year)	12,940 (573)

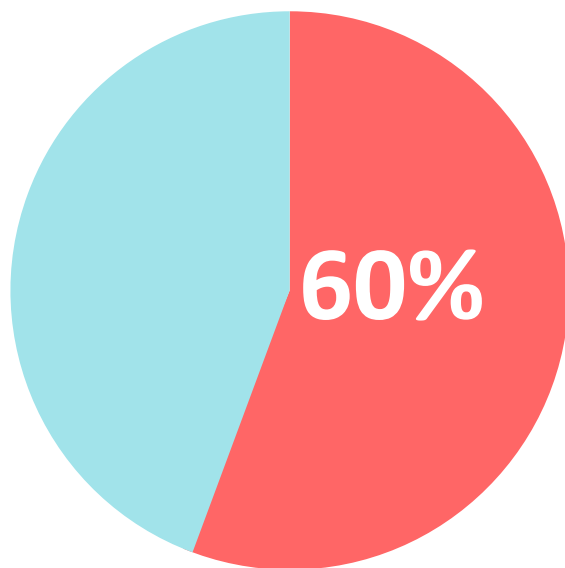


- Construction of New line
- Increase of Tracks
- Introduction of Long train set and Large body car

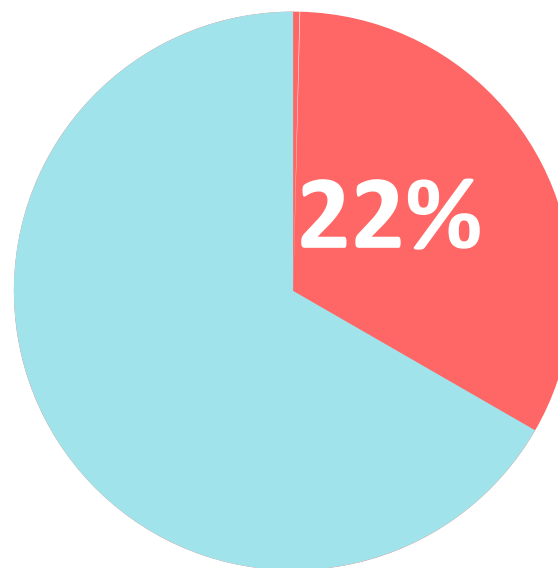


The share of railway passenger transport in the Tokyo Metropolitan Area is outstandingly higher than metropolitan areas in other countries.

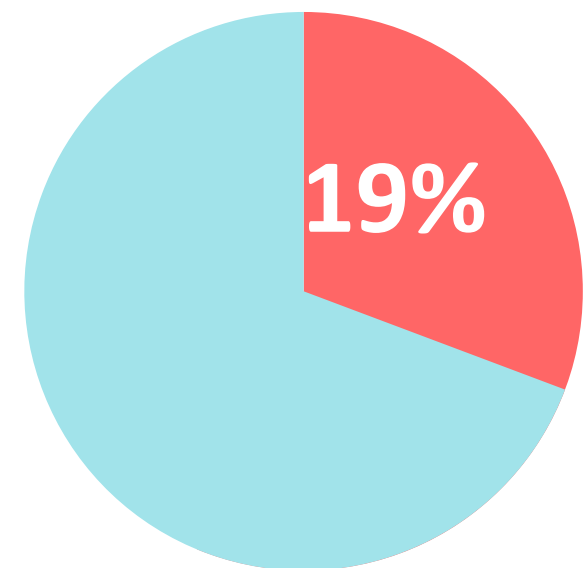
International comparison



Tokyo Metropolitan Area
(FY 2009)



New York
(FY 2007)



London
(FY 2006)

What is a LVC model?

LVC (Land Value Capture):

Financial and regulatory mechanisms by which the proceeds from increased land value will be spent for financing infrastructure development.

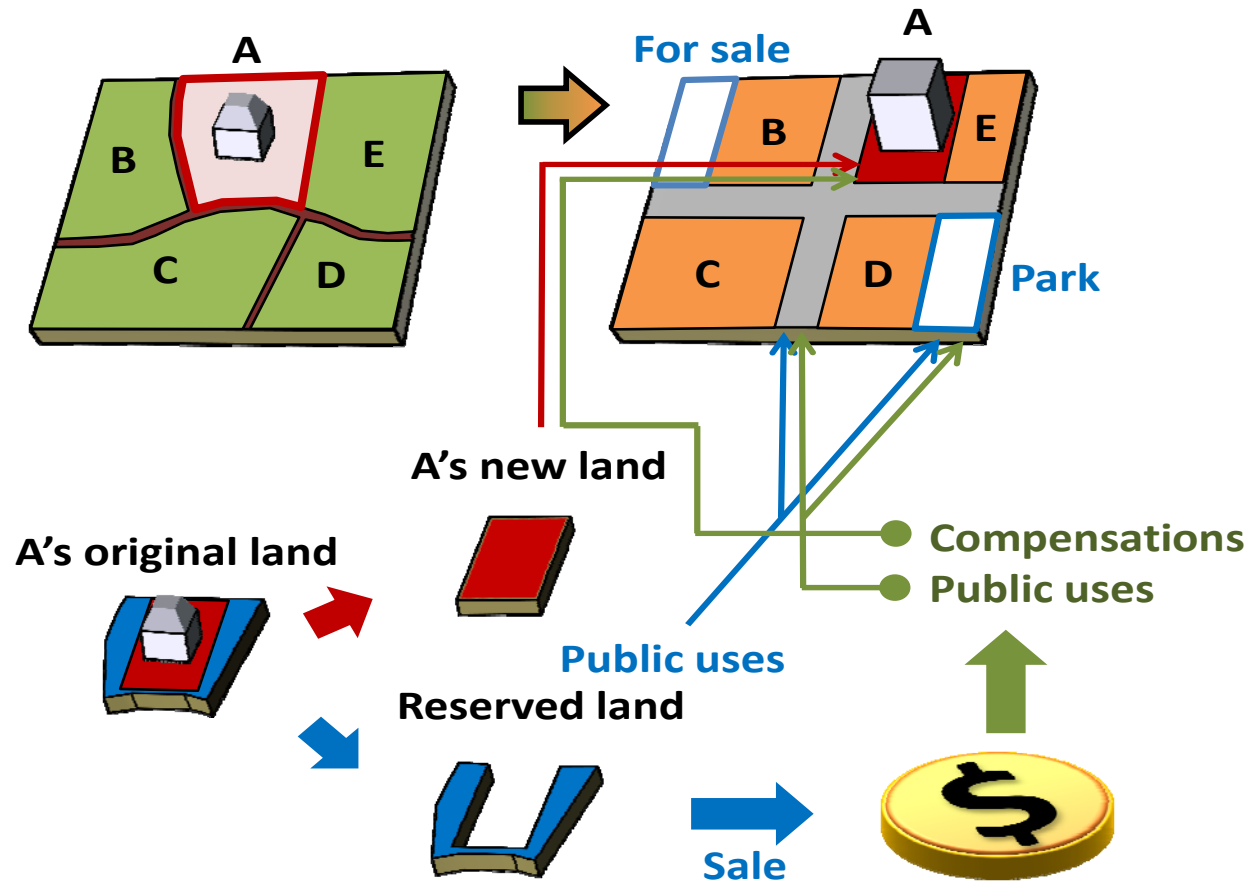
	Instrument
Tax- & Fee-Based	Property and Land Tax
	Betterment Levies and Special Assessments
	Tax Increment Financing (TIF)
Development-Based	Land Sale or Land Lease
	Air Right Sale
	Land Readjustment
	Urban Redevelopment Schemes

Source : Adapted from Suzuki, Murakami, Hong and Tamayose, 2015, "Financing Transit-Oriented Development with Land Values: Adapting Land Value Capture in Developing Countries"

LVC Instrument: Land Readjustment

Land Readjustment

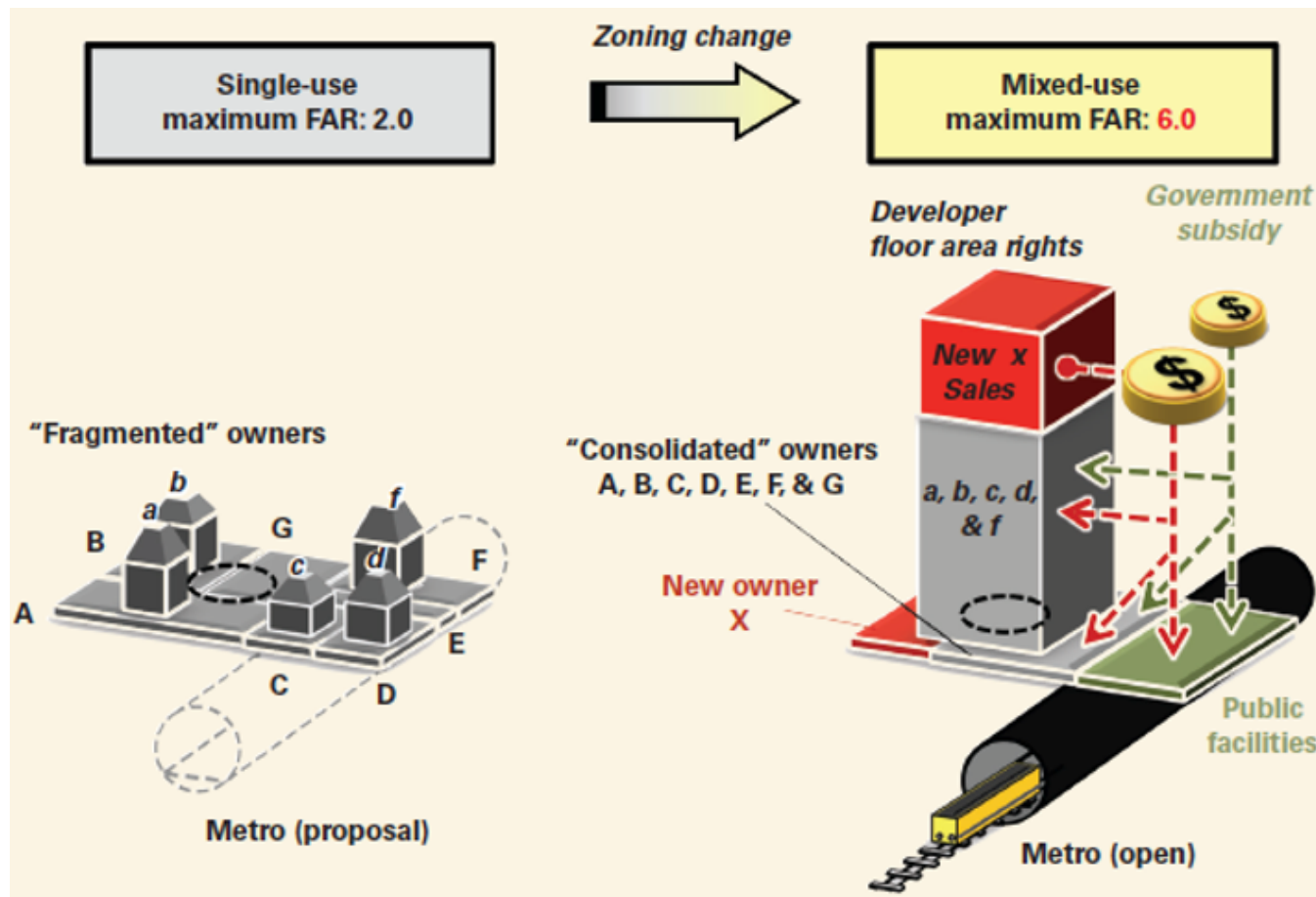
Landowners pool their land together for reconfiguration and contribute a portion for sale to raise funds to pay for public infrastructure. This can be used as an instrument to finance transit line and station development.



LVC Instrument: Urban Redevelopment

Urban Redevelopment

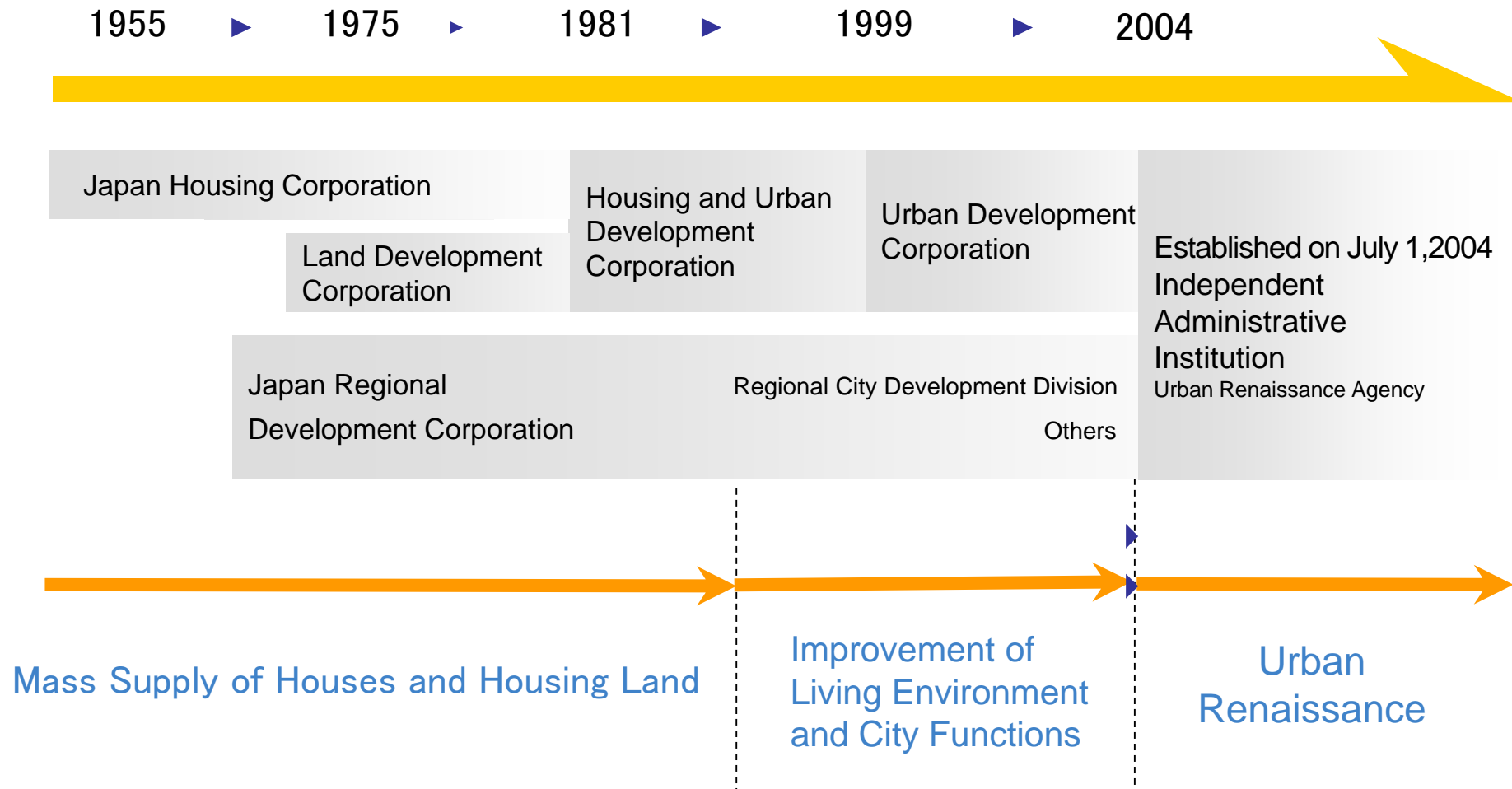
Landowners together with a developer establish a cooperative entity to consolidate land parcels and develop buildings with new access road and open space. To capture the potential accessibility benefits conferred by a transit station, the local government converts zoning codes to allow high-rise and mixed – use buildings.



Source: Adapted from Ministry of Land, Infrastructure, Transport, and Tourism 2013

Urban Renaissance Agency (UR)

【transition of the Organization】



Capital : JPY 1.058Trillion ≒ USD 10billion Staff : 3,233 (as of April 1, 2014)

Urban Renaissance Agency (UR): Mandates

- ☐ To supply rental housing necessary for the society including providing safety network function to those vulnerable to housing for the elderly or household with small children, which are short in supply.
- ☐ To promote Urban Renewal Project with high political significance such as projects accompanied by a large scale infrastructure development or improvement of densely populated area, etc. while maintaining division of roles with private sector and municipalities.
- ☐ To support for the reconstruction of disaster hit area of Great East Japan Earthquake and the strengthening the urban disaster prevention function.

Rental Housing

UR properly manages rental housing and provides rich living space.

- To manage rental housing through cherishing trust relationship with 750,000 residents
- To promote to live in the urban center, to secure stable rental housing for elderly, to improve child care environment.



Ojima 6 Chome Danchi (Tokyo)

Source: UR

Urban Renewal

UR promotes Urban Renewal in collaboration with Private Business and local authority.

- To promote Urban Renewal
- To coordinate Vision, Planning, Conditions
- To join the project as a partner



Toyosu 2Chome (Tokyo)



Kohoku New Town (Kanagawa)

New Town Development

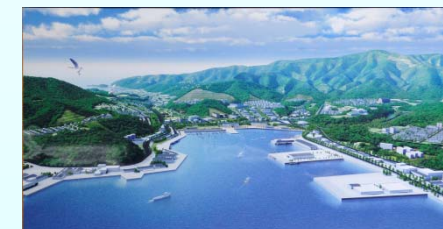
UR aims at building urban area that provides safe and comfortable life in the suburbs

- To advance safe, secure, and eco-friendly city building coping with aging population and lower birthrate
- To realize attractive suburban life or local living
- To complete promptly new town business

Disaster Restoration

UR supports the reconstruction of disaster hit area and the strengthening of urban disaster prevention function.

- To promote building disaster resilient urban area

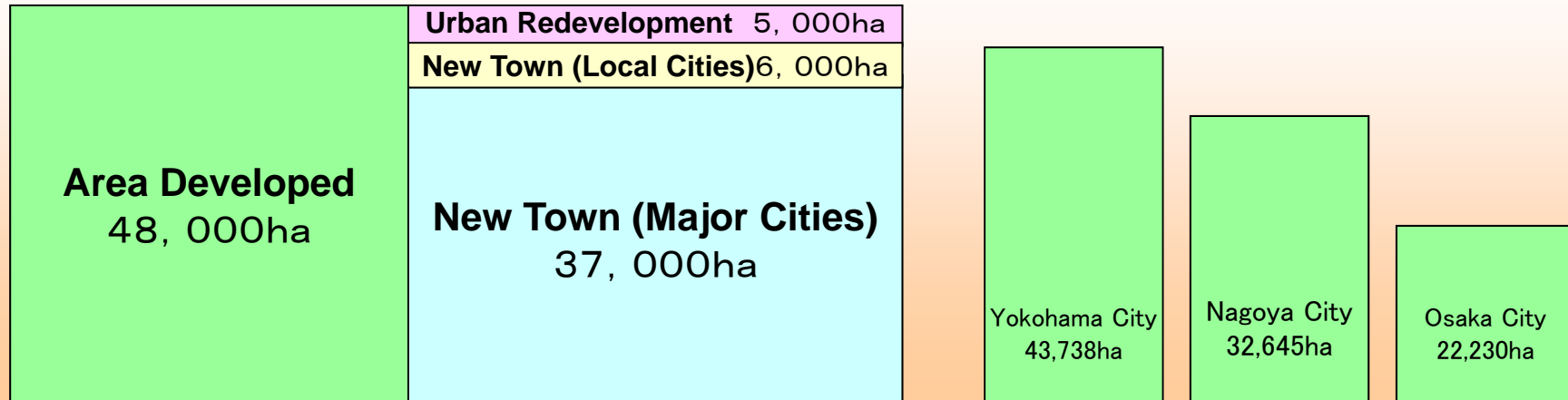


Recovery Image of Onagawa Town (Miyagi)

Urban Renaissance Agency (UR): Achievements

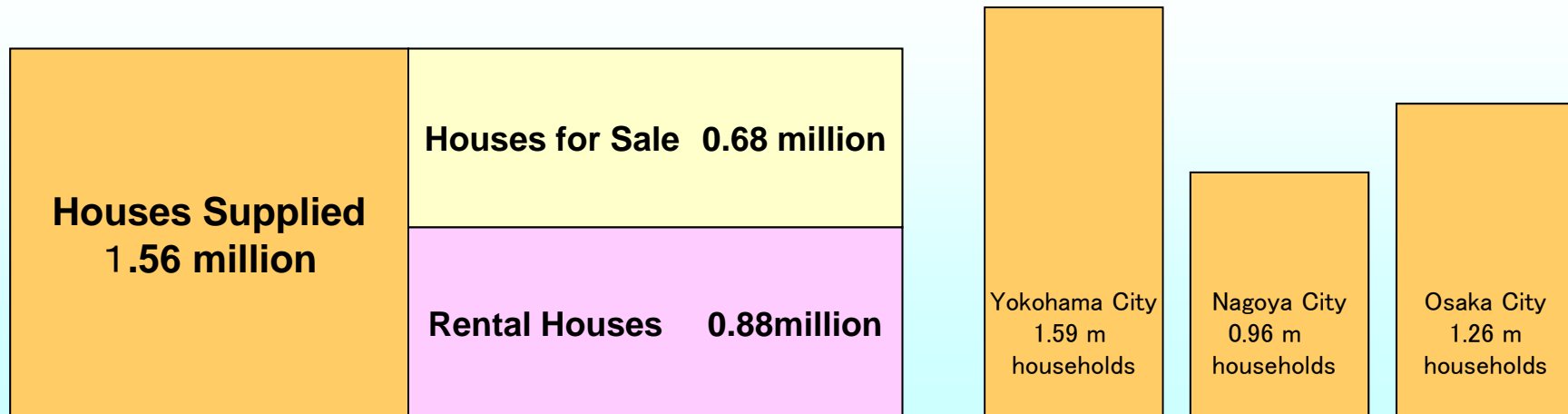
Urban Development

The total area of new towns and urban redevelopment so far undertaken by UR is around 48,000 ha. This is equivalent to 78 % of total area of Tokyo Metropolitan Area which is larger than other major cities.



Housing

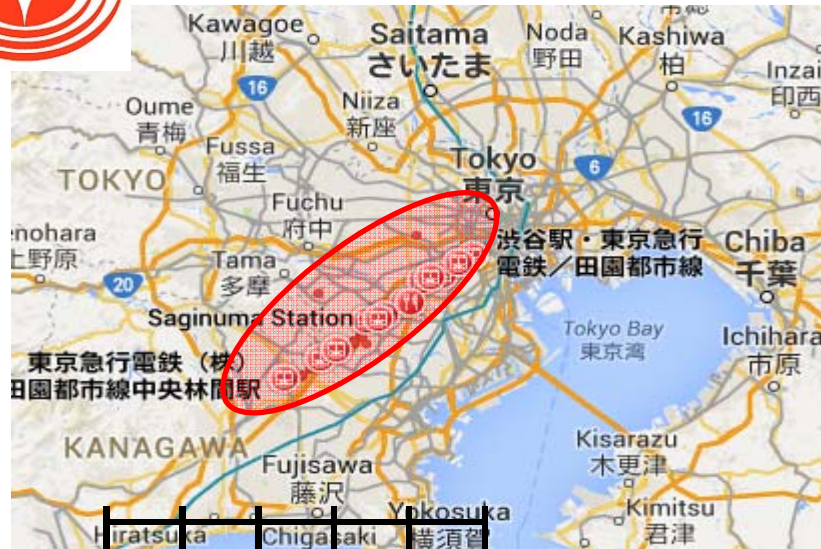
The total number of houses so far supplied by UR is around 1.56 million. This is equivalent to 98 % of total households of Yokohama City, and larger than those of Osaka City and Nagoya City.



Case Study 1: Suburban Development by Private Company



Tama Garden-City developed by Tokyu Corporation

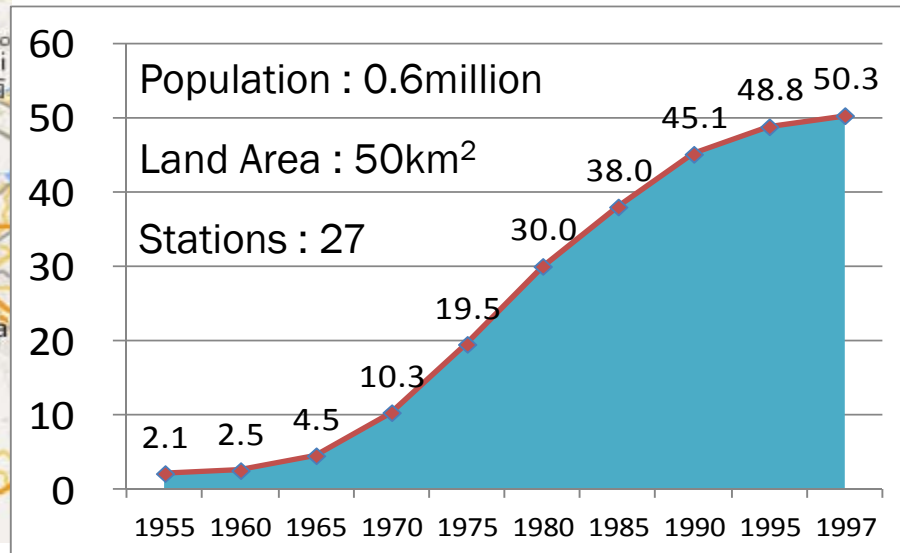


0 10 20 30 40 50 km

〈Before-Development(1960)〉



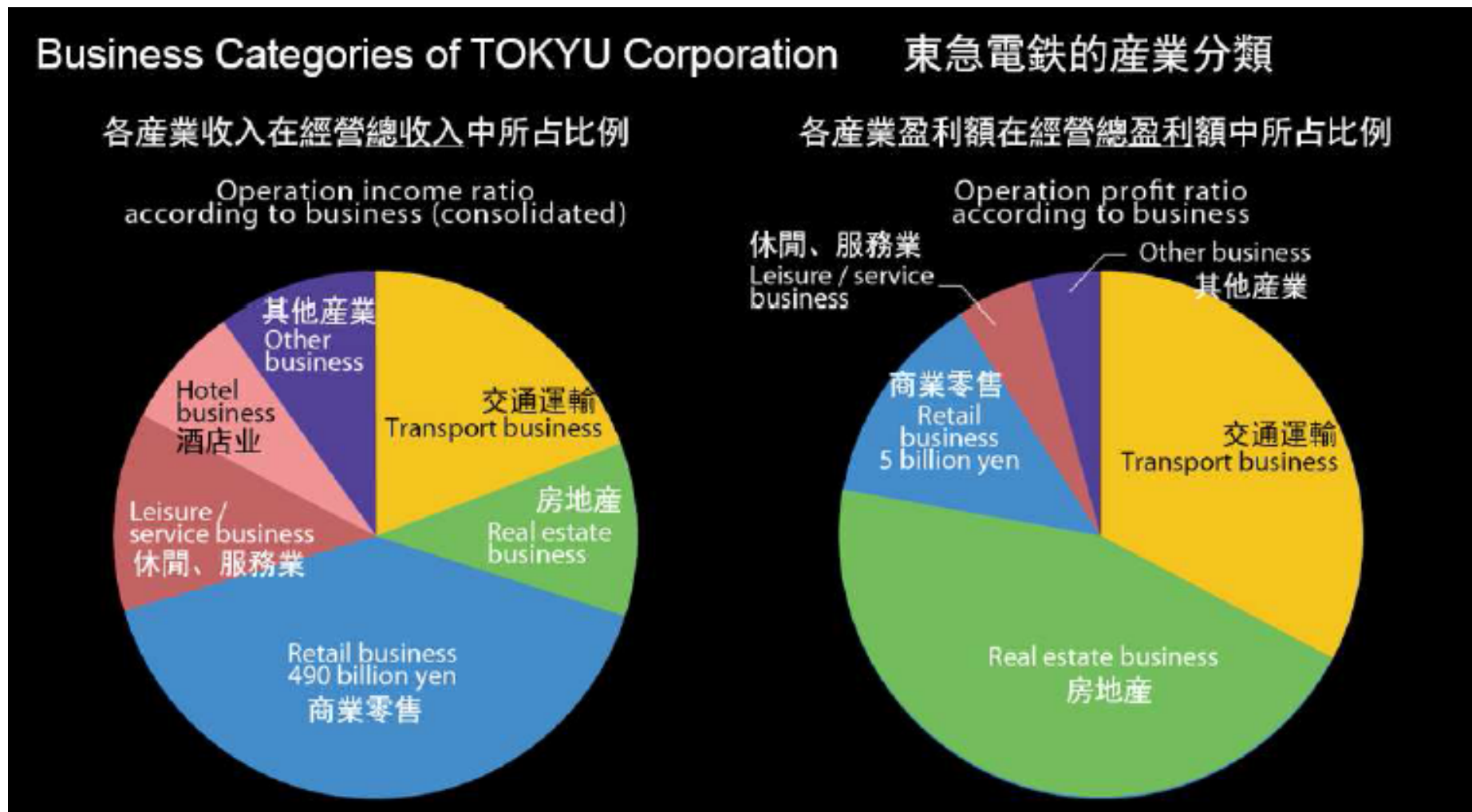
Source: Tokyu Corporation



Source: Tokyu Corporation

〈After-Development(2014)〉





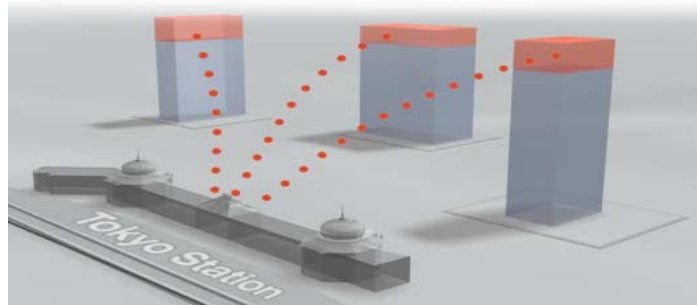
Source: Nikken Sekkei Ltd. based on data by Tokyu Corporation

Case Study 2: Air Right Sale in Tokyo Station

LVC instrument: Air Right Sale

A regulatory arrangement that enables a landowner to transfer or “sell” portion of its unused air development right (i.e. additional Floor Area Ratio to develop a taller building) to an adjacent parcel or to a landowner in the designated project area.

Tokyo Station (Marunouchi, Tokyo)



Standard FAR	1300%
Tokyo Building	1702%
Shin-Marunouchi Building	1760%
Marunouchi Park Building	1530%



Original 1914



2012 : Restoration to the Original



Post War : Temporary Mended Roof

(1) Location of Toyosu

Toyosu is located at the waterfront of Japan's capital Tokyo.



Overview of Toyosu

Location	Koto-ku, Toyosu district 1~3
Area	Approx. 60ha
Planned Population	Resident: 22,000 Working: 33,000



(1) Toyosu redevelopment Taking advantage of the industry remains

In Toyosu, in 2002 the existing shipyard was closed, infrastructure and office building establishment was started, with the aim of adding value to the area by applying town management.



Before the redevelopment (January 2001)



【Characteristics of town development】

- ① Joint Development of 『working/living/studying/entertainment』
- ② Few landowners(stakeholders) ⇒ fast development speed
- ③ Idea of 『Town management』 from the beginning
- ④ Taking advantage of the industry remains

Now (February 2015)



(4) Method of infrastructure construction

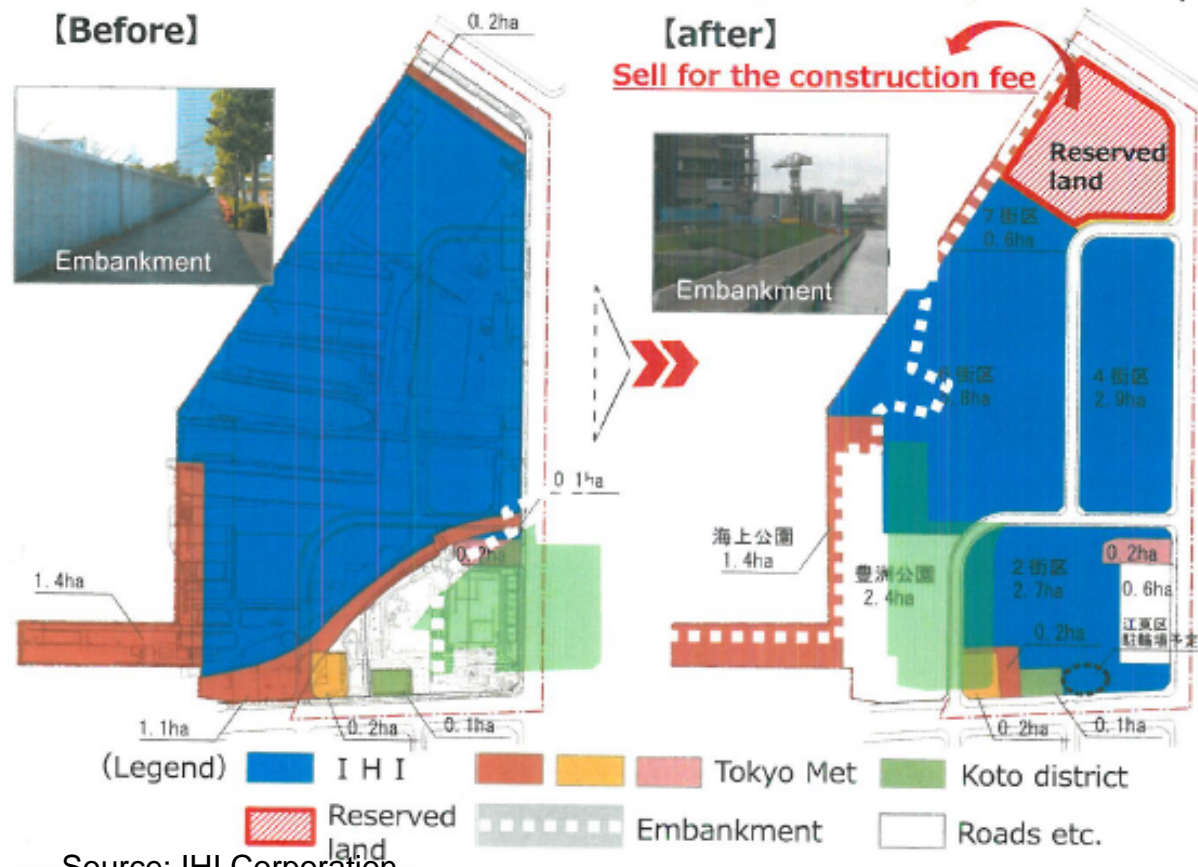
【Example】 The Method of infrastructure construction at Toyosu district no.2 『**Land Readjustment Project**』

The private sector conducted land relocation and reconstruction of the public facilities (roads/parks/tap water and sewage/ seawalls /embankment, etc.) *).

- The landowners provided their lands depending on the rights little by little (GENPO).

The sector supplied these lands to the gaining part of roads and parks and sold the part of the reserved lands and earn their construction fee. And there are some subsidies.

*) UR(Urban Renaissance Agency) was requested to implement the project by private and public sector.



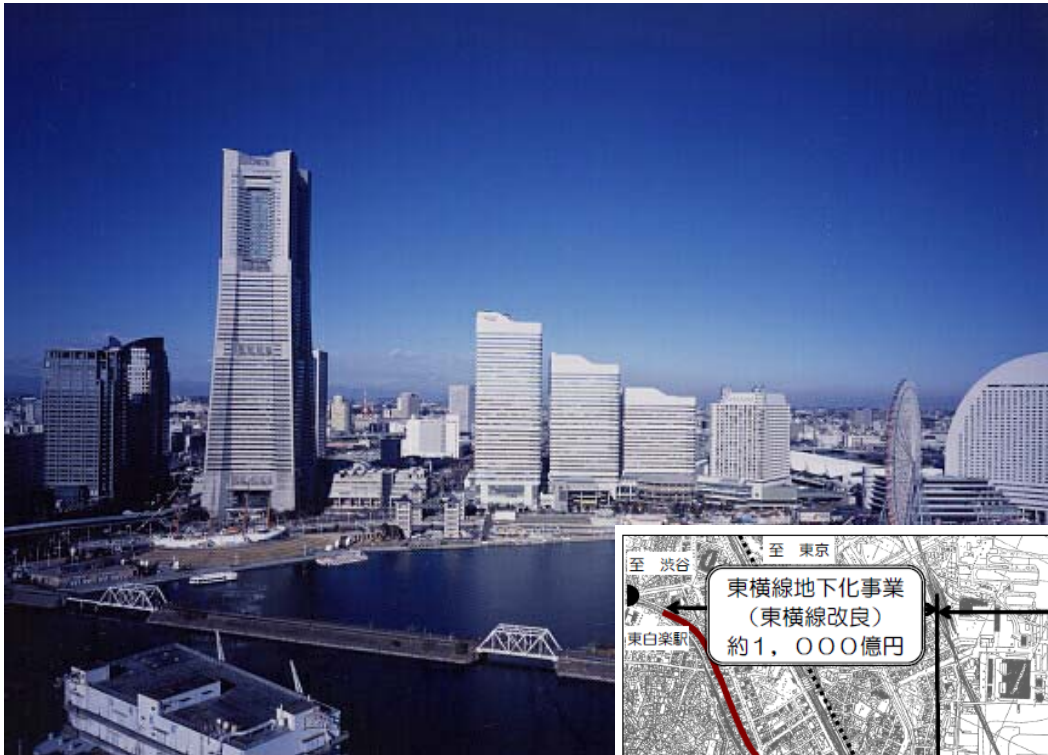
Investment Plan for Infrastructure Development at TOYOSU District 2

Revenue	Sales of reserved land	Approx. 77 Million \$
	Governmental subsidies	Approx. 10 Million \$
	Total revenues	Approx. 87 Million \$
Expenditure	Construction cost of public facilities	Approx. 21 Million \$
	Construction cost of coastal levee	Approx. 48 Million \$
	Other cost for development	Approx. 8 Million \$
	Administrative cost	Approx. 10 Million \$
	Total costs	Approx. 87 Million \$

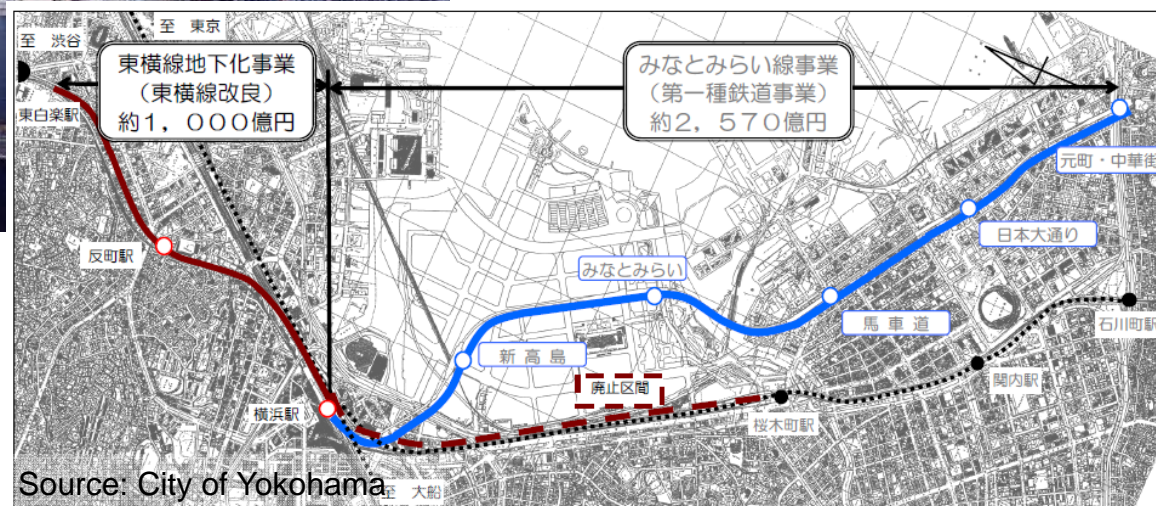
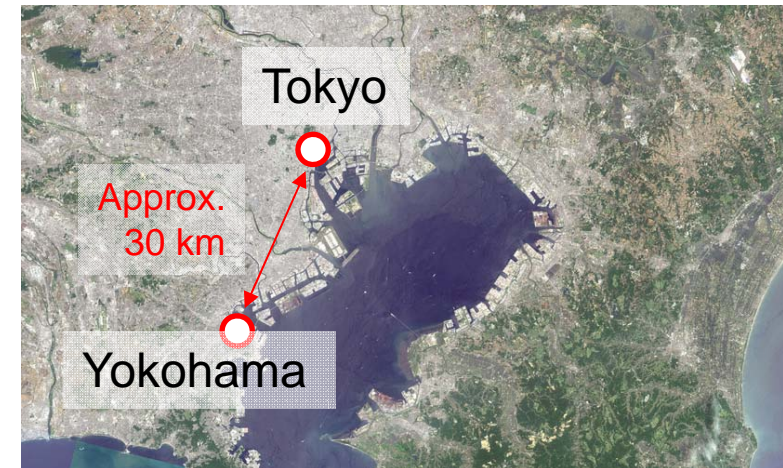
Source: IHI Corporation

Case Study 4: New Subway Construction in Bay Area

Minato-Mirai Line is a newly built underground urban railway that connects Yokohama Station with the major waterfront redevelopment site of Yokohama City. The property owners agreed to pay charges to partially cover the construction cost.



Source: City of Yokohama



Source: City of Yokohama

- Yokohama City carried out railway construction and urban development using the vacant sites of shipping yards and freight terminals to construct an attractive city.
- Yokohama City used a system whereby surrounding land users paid the cost of railway construction and JRTT provided P-line subsidies, thereby maintaining profitability of the railways.

Before execution (1978)

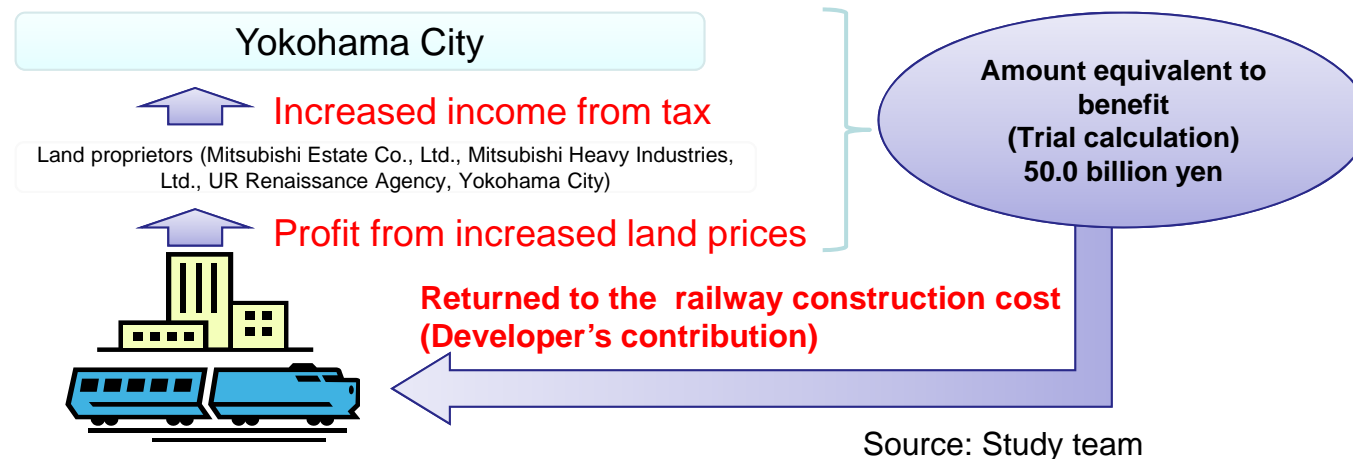


After execution (2007)



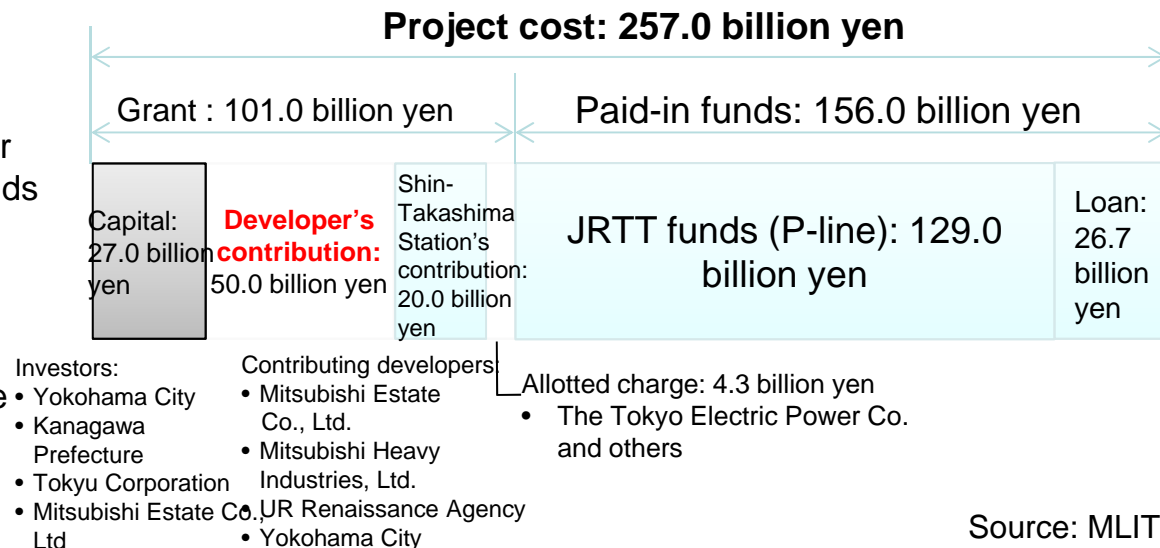
Source: Electronic Territory Portal,
the Geospatial Information Authority of Japan

Concept of the Benefit Principle



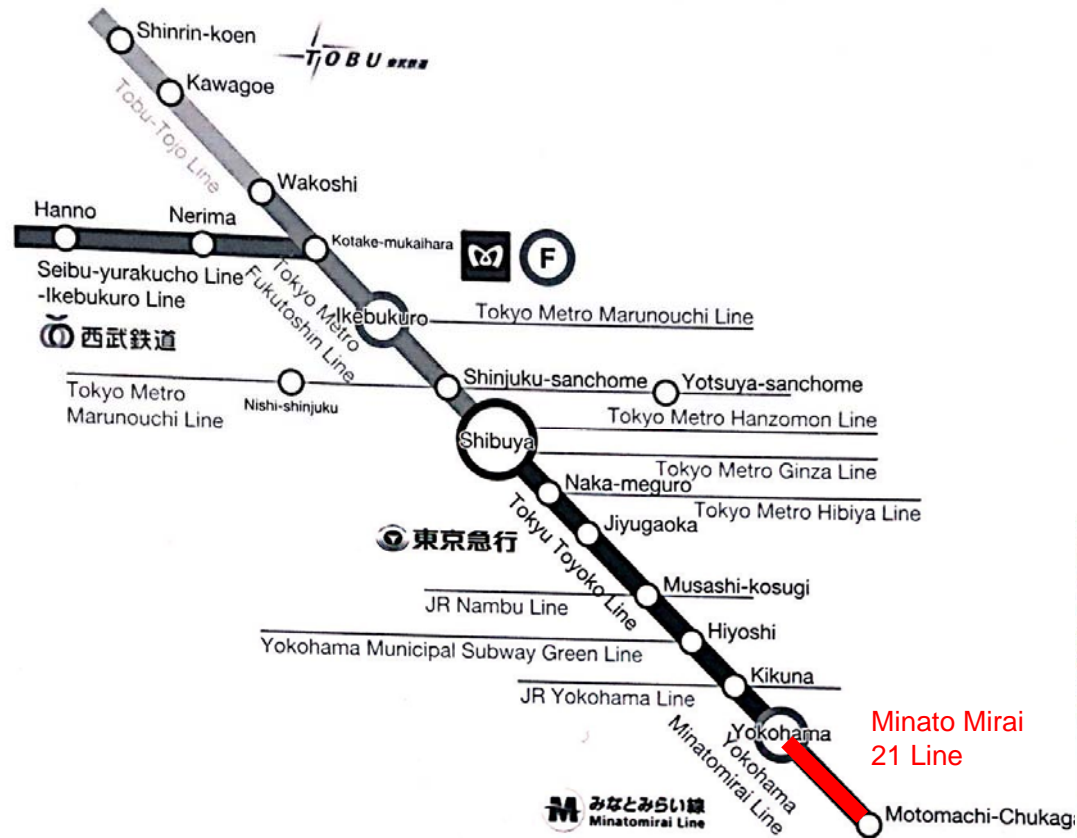
Concept of Financing

- Establishment of a quasi-public sector organization by public and private funds
- Land user profit from increased land prices used to repay the construction cost
- Financing by JR TT
- Interest subsidy (introduction of P-line subsidy) by central and local governments
- Loan from DBJ and others

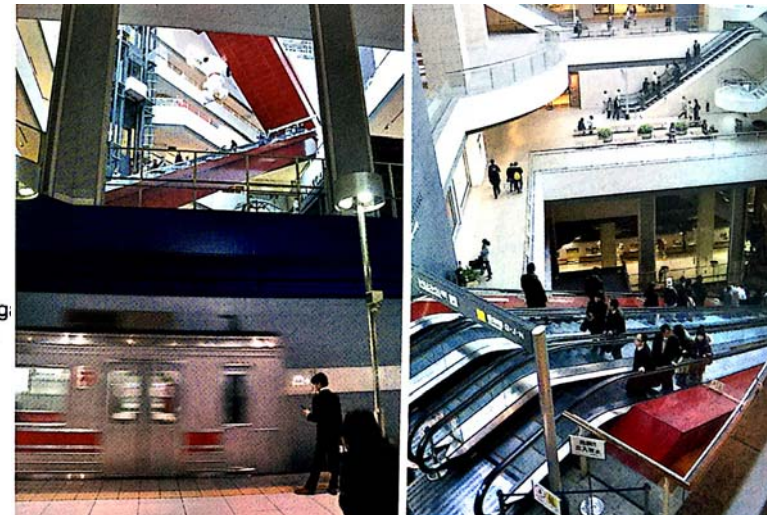


Case Study 4: New Subway Construction in Bay Area

- Through operation with Tokyu Line increased convenience for commuters.
- Integrated station design enhanced the image of the area.



Source: Nikken Sekkei



Source: Nikken Sekkei

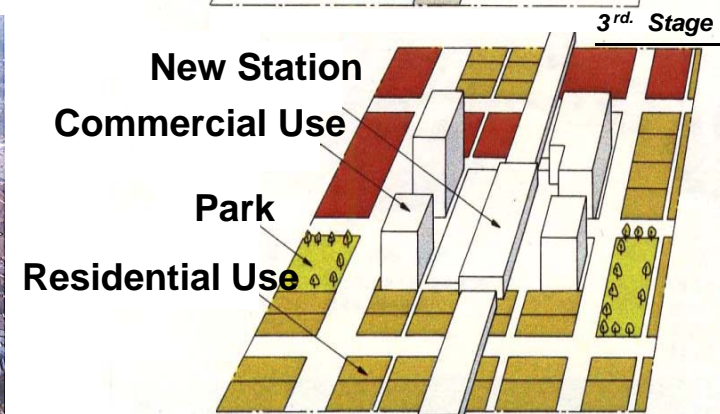
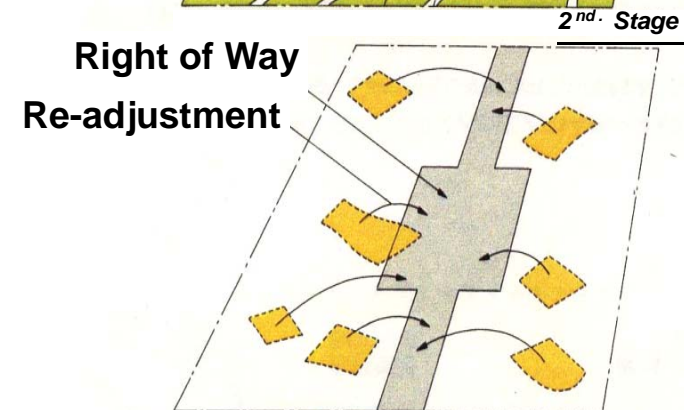
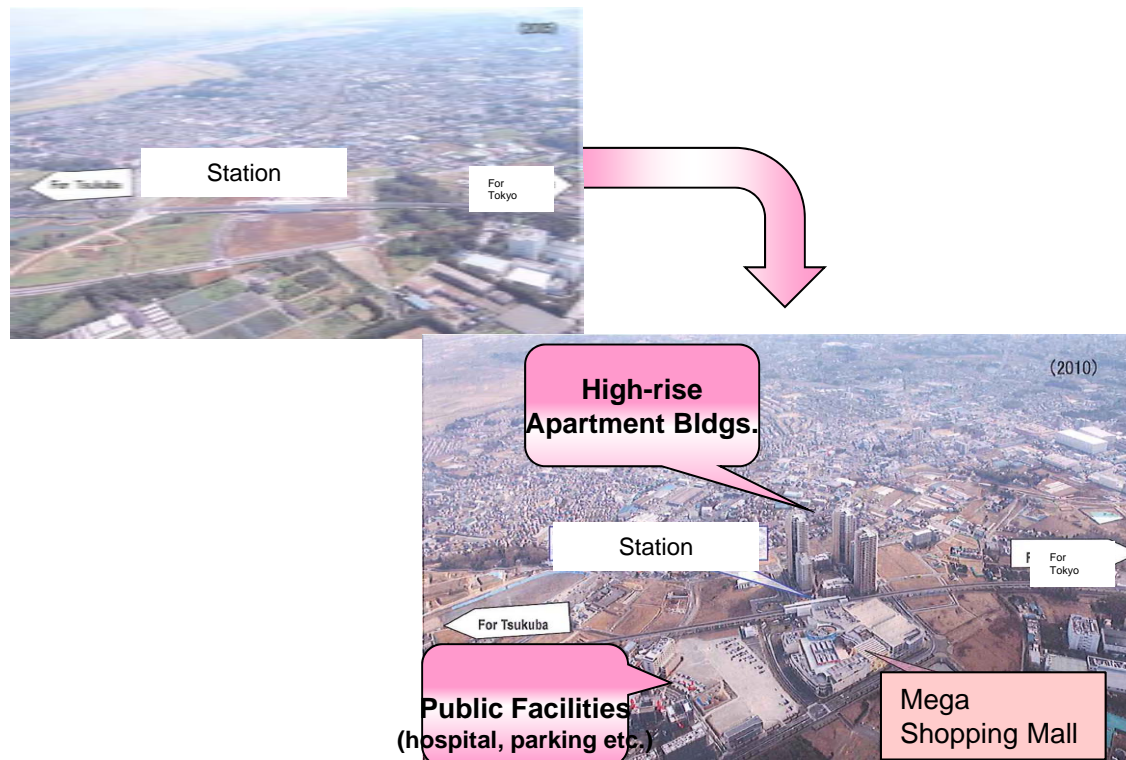
Case Study 5: Latest Suburban Railway and Town Development

Tsukuba Express Line started operation in 2005, between central Tokyo and the north-eastern part of Tokyo metropolitan area.



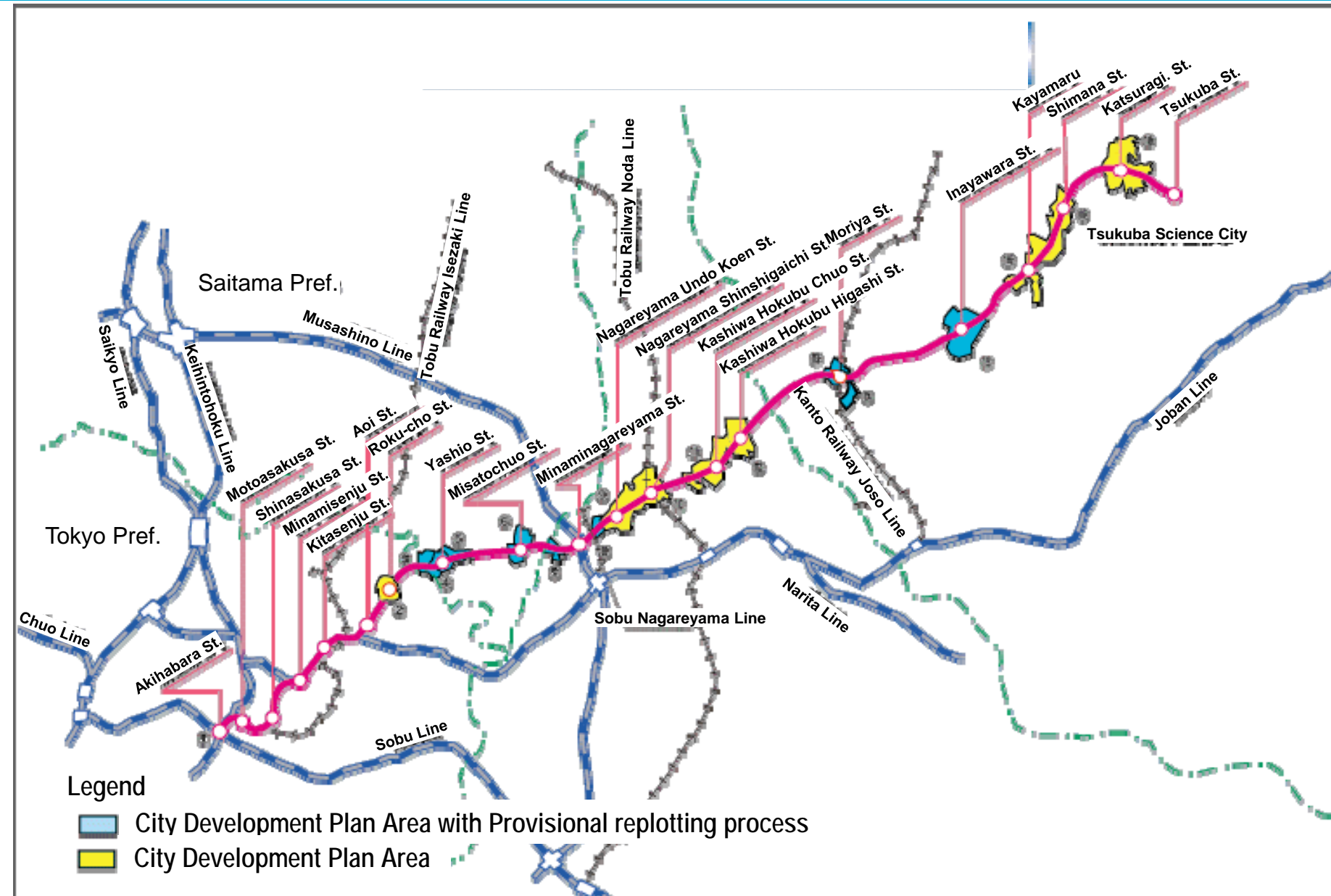
Case Study 5: Latest Suburban Railway and Town Development

Acquisition of the right of way and town development along the line was conducted under the **1989 Housing and Railway Act**. Under the law, local governments were able to conduct land readjustment in which reserves for railway facilities were allowed.



Source: Murakami, 2010; Suzuki, Murakami, Hong and Tamayose, 2015

Case Study 5: Latest Suburban Railway and Town Development



- Ministry of Land, Infrastructure, Transport and Tourism (MLIT) and Organisation for Economic Co-operation and Development (OECD) jointly organized the **Policy Forum on Urban Development and Green Growth** in October 2014.
- The objectives of the Forum were to **share Japan's experience on Transit-Oriented Development (TOD) and other urban development practices with Asian cities** and to discuss how to collaborate for sustainable urban development.

Date and Venue: 14-16 October 2014, Tokyo

Participants: About 110 participants including representatives from national and local governments from ASEAN countries (Vietnam – including Construction Vice-Minister, Myanmar – including Yangon Mayor, Malaysia, Indonesia, Thailand), Japanese private companies (construction, design firms, developers, etc.), international organizations (JICA, World Bank, UN-Habitat, UNCRD, etc.)

Outcomes: The dynamic discussions were held in three sessions below. At the result of discussions, MLIT and OECD shared the Chairs' Summary, which presented the recommended future actions for participants. In second day, a site tour was offered to ASEAN participants to guide some of major urban development sites (Marunouchi area, Toranomon Hills, Shimizu Construction HQ eco-building)

Session 1: Policy Dialogue
Identifying Opportunities for Urban Green Growth



Remarks of Yangon Mayor (Myanmar)

Session 2: Public Private Roundtable
Sharing of a Variety of Japans' Practices



Presentation of a Japanese developer

Session 3: Collaborative Actions
Collaborative Actions for Sustainable Urban Development in Asia



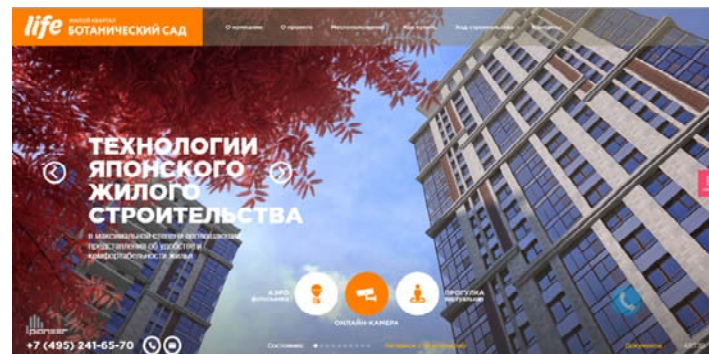
Closing by MLIT State Minister and OECD Director

Transit Oriented Development in Moscow City

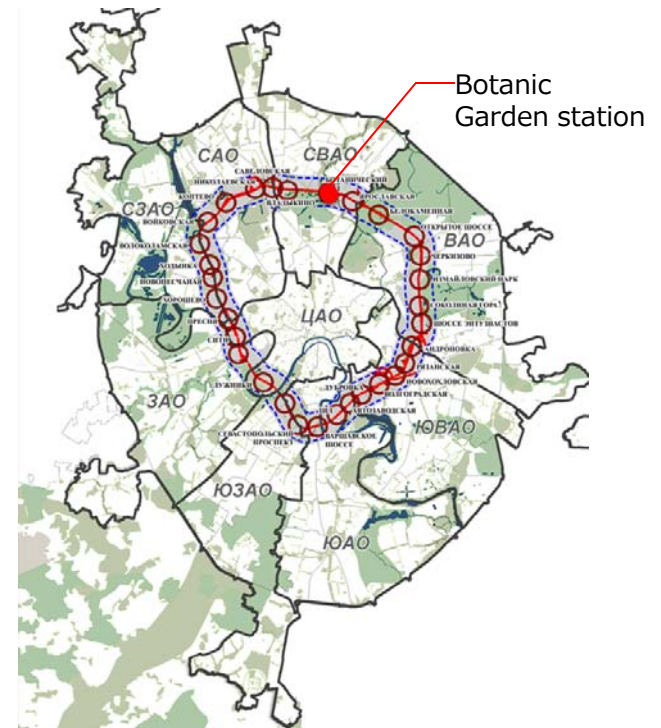
- In order to reduce traffic congestion in Moscow City, Japanese government is working together with Japanese companies to promote Transit-Oriented Development (TOD) in Russia and establish a model for the country.
- This will be proposed to the Japan-Russo Working Group on Urban Environment in June 2015.



Proposed Development of Botanic Garden Station area
Source: Nikken Sekkei Ltd.

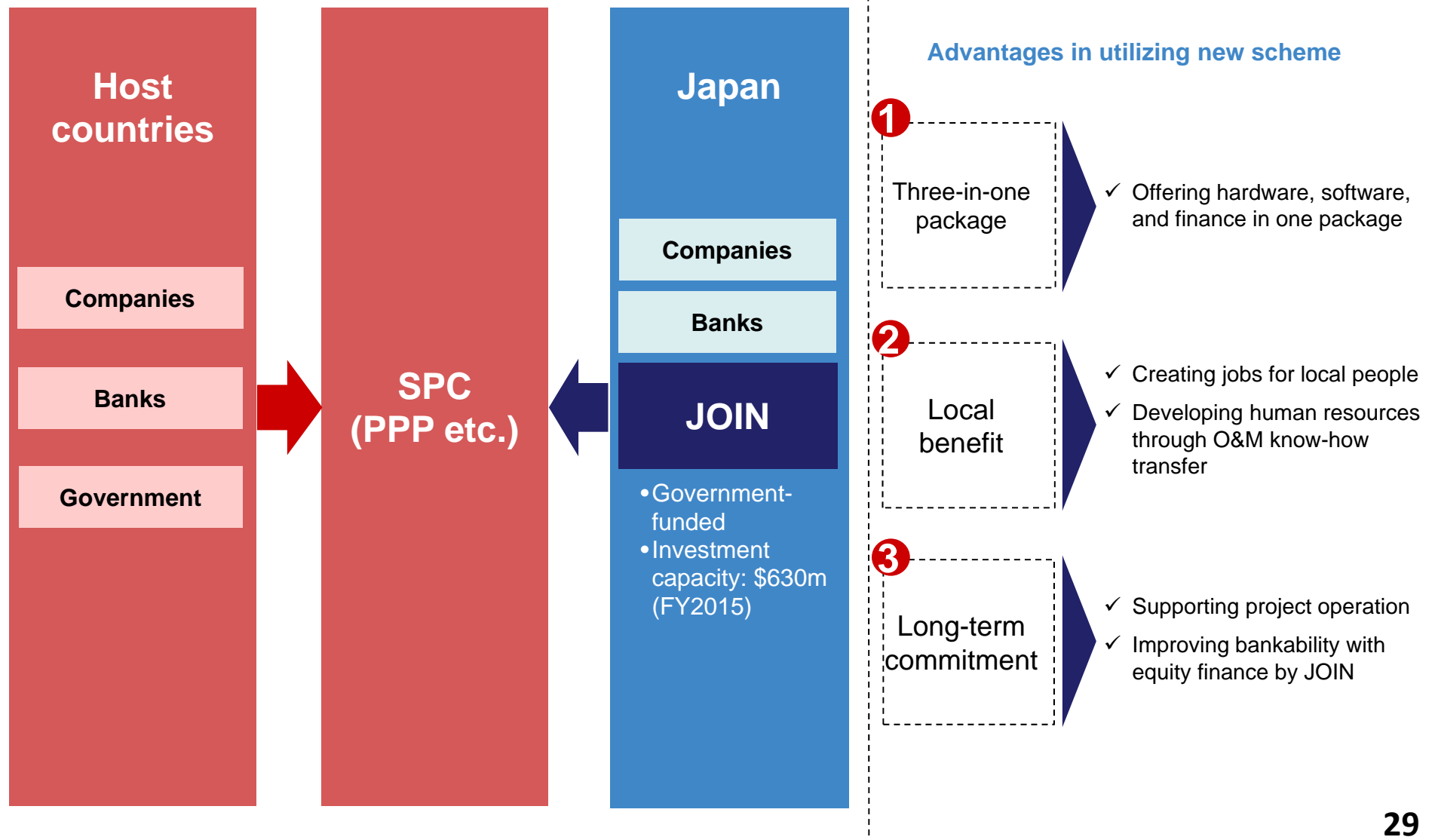


Source: botsad.pioneer.ru





PPP scheme utilizing JOIN can be applied to transport and urban development



❑ Importance of integrated development of urban transit and towns along the line.

- Urban transit will serve not only current residents but it will guide the settlement of future population.
- The fruit of urban growth will benefit the transit development through increased land values.

❑ Keys for successful integration.

1. Legal and institutional frameworks, such as zoning law and specialized urban development agency.
2. Promotion of public-private partnership, including land owners and local governments.
3. Efforts to enhance the attractiveness of transit.

Thank you very much.