

# Field trip report

Field trip transport planning, 231.043, 2 ECTS, 2017S

## **Transit-Oriented Development (TOD) initiated by private railway companies in Japan**

The example of Utsukushigaoka on the  
Tama Den-en Toshi line

Stefan Hudak (Matr. Nr. 00615810)

Stefan.Hudak@student.tuwien.ac.at

8 August 2017



# 1. Transit-Oriented Development along the Tama Den-en Toshi line

Transit-Oriented Development (TOD) can be considered as a strategy to accommodate the increasing urban population in a compact, mixed-use development near transit facilities with a high-quality living environment. In Japan, it was the private railway sector, driven by profit-motives, that traditionally pushed forward to create strings of small towns along their railway corridors that connect city centers and don't provide much employment. Consequently, railways have become the most relevant means of transportation to the central business districts, thus ensuring a constant revenue for the railway companies. At the same time, commercial activities often concentrate around the train stations, while the residential areas are located within walking distance and offer parks, playgrounds or sports areas for a high-quality living environment.

In the 1950s, the Tokyu Corporation – a private railway company – began to expand its network from Shibuya Sta. in Tokyo, one of the busiest commuter stations in the world, to the southwestern suburbs of Tokyo and the Kanagawa prefecture. The line operates along four cities (City of Kawasaki, Yokohama, Machida and Yamato), connects Shibuya and Chuo-Rinkan through 27 stations and has a length of 31,5 km (Fig. 1).

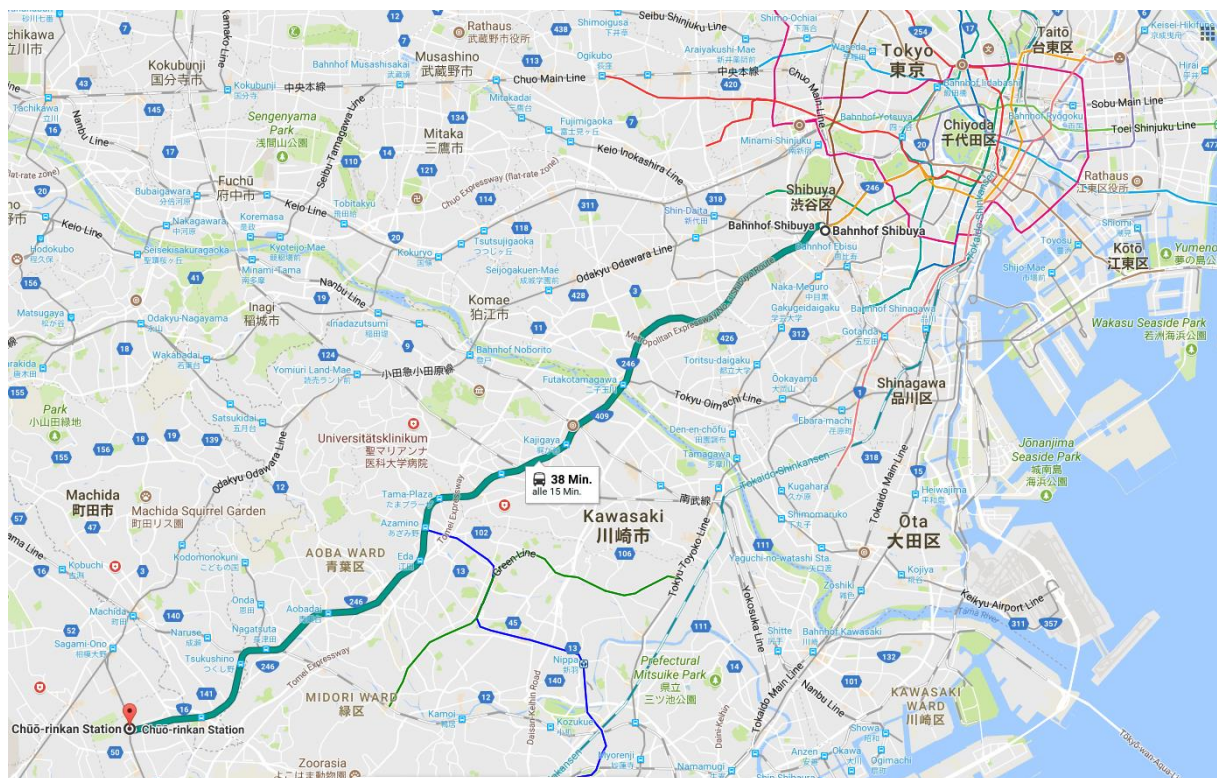
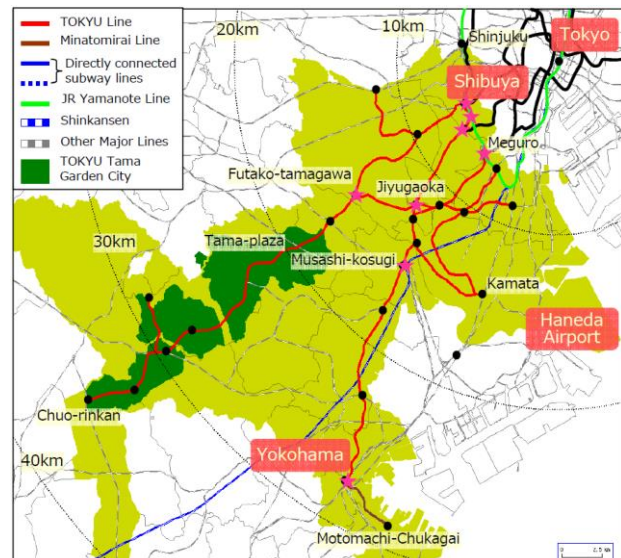


Fig. 1: Tama Den-en Toshi line connecting Shibuya Sta. and Chuo-rinkan Sta. on 31,5 km (Google Maps)

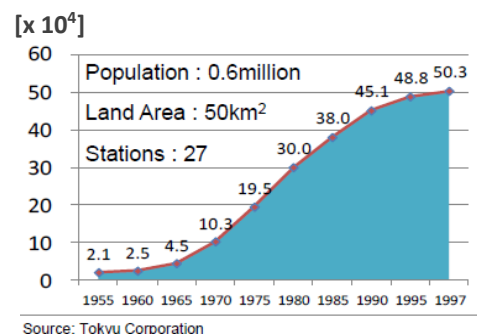
The “New City Plan” presented by Tokyu for this development was based on the model of the garden city by Edward Howard. It promoted the idea of dividing Tama Den-en Toshi into four blocks, building green, low-density residential zones and ensuring the accessibility of the area with the new train line (Fig. 2).<sup>1</sup> This “Tama Garden City” was aimed to provide housing for 400.000 people in an area of 50 km<sup>2</sup>.



**Fig. 2: Tama Den-en Toshi (dark green)**

By the end of the 1950s, the land-readjustment program started. This scheme, falling under the jurisdiction of the Ministry of Construction, helped to manage the suburban expansion by relieving companies of the upfront costs of acquiring the land and fund all the infrastructure. In a cooperation with landowners, where at least 2/3 have to agree, the undeveloped and often irregularly shaped land was consolidated and developed with roads, parks and public facilities by the railway company, that takes full responsibility for the design and management of the project. The landowners, on the other hand, get a fully-serviced, but slightly smaller land with an increased real estate value in return.

While the railway operation began in 1966 and covered the first three zones of Tama Den-en Toshi, a “Pair City Plan” came up to address the rapid growth of population. It evolved from around 15.000 in 1953 to 100.000 in 1970 (Fig. 3). The new plan changed the development of the area from low to high-density housing without notable negotiation with the residents.



**Fig. 3: Population growth in Tama Den-en Toshi**

Today, Tama Den-en Toshi has around 600.000 inhabitants and is considered to be one of the most attractive quiet and green living areas near Tokyo, while the railway line is being used by more than 1 million passengers daily.<sup>2</sup>

<sup>1</sup> [http://www.japantransport.com/seminar/\(2\)%20Mr.%20Tomoo%20Kimura%20\[Tokyu\].pdf](http://www.japantransport.com/seminar/(2)%20Mr.%20Tomoo%20Kimura%20[Tokyu].pdf) [29.07.2017]

<sup>2</sup> While Tama Den-en Toshi (the dark green area in Fig. 2) has 600.000 inhabitants on 50 km<sup>2</sup>, the area along all the Tokyu lines (light green) has a population of 5.000.000 (2011) on approximately 490 km<sup>2</sup>.



## 2. Utsukushigaoka at Tama Plaza Station

Utsukushigaoka is a residential area at Tama Plaza station on the Tama Den-en Toshi line and part of the City of Yokohama. It is known for its high-quality living environment in a green and quiet surrounding, a population with a rather high education level and a pedestrian-friendly access to the train station. The ride from Tama Plaza to Shibuya Sta., a common commuting destination for the residents and a traffic hub for connections to other public transport lines, takes about 20-30 Minutes.



Fig. 4: Map of Utsukushigaoka at Tama Plaza Sta.

### *Observations during the site visit*

#### **Tama Plaza Station**

The station serves as the access point to Tokyu's Den-en Toshi line with a direct connection to Shibuya Sta., as well as the commercial center of the residential area, providing shopping centers, restaurants and several smaller stores. It is also being serviced by feeder buses operated by the railway company.



#### **Pedestrian walkway**

Pedestrians enjoy a green and car-free walkway between the station and the residential buildings.





### Car parking

Parking on the street is not allowed in the residential area. Specific spaces are provided, where residents can buy or rent parking lots.



### Green surrounding

The residential area is situated in a well-maintained lush green surrounding with mostly direct access to the car-free walkway and to the main street serviced by the feeder buses.



### Hilly terrain

Although the town is highly pedestrian-friendly with the complete separation of the walkway from other traffic, the hilly terrain often leads to sections with stairs and high slopes. These may cause problems for the elderly, for people with disabilities or while carrying the shopping home or pushing a stroller.



### Challenging crossovers

At the main street, crossovers provide connections between different parts of the town. However, due to its steepness, the arch form of the bridges does not allow an easy crossing, especially at its both ends.





### Main street

The main street handles most of the motorized traffic and offers access from the residential area to the feeder buses running every five minutes to/from the train station. However, there is no separate cycling lane and the sidewalk is rather narrow, especially at the bus stops.



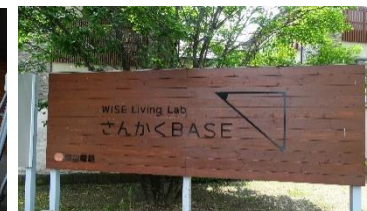
### Public facilities

Mostly along the pedestrian walkway in a green environment, public facilities like playgrounds, sports fields or swimming pools for children increase the quality of living in the area. The reason for the swimming pool not being in operation in July could not be found out.



### Community center

The WISE community center has been established to facilitate the exchange between the local community, Tokyu and the government, to offer a meeting point for the residents and to provide a central point of information about ongoing activities in the area. It is financed jointly by the government and the Tokyu railway company.



### 3. Challenges

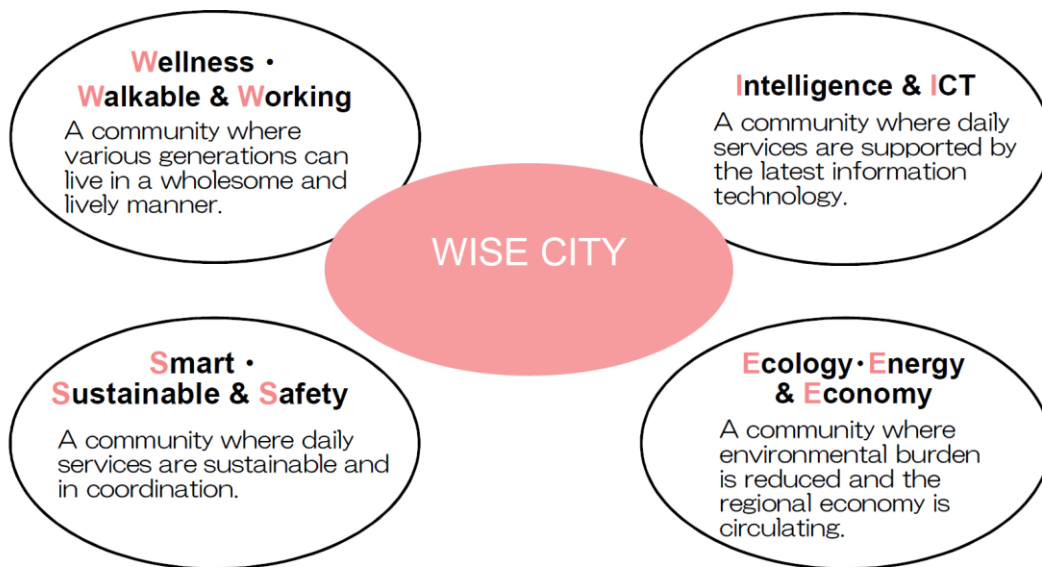
Despite the attractiveness of the residential environment, the town faces several challenges that can be summarized under the following major aspects:

- Aging population: Living in the suburb tends to become less popular among the young generation. With the current development of the area, the proportion of the population over 65 is expected to rise from 20% in 2015 to 30% in 2035. This tendency is mostly being attributed to a change of lifestyles among the young generation, that isn't considered to be compatible with the possibilities offered in the green and quiet residential area with strict regulations by the land use system.
- Vacant houses: Most of the properties in Utsukushigaoka are privately owned, therefore vacant houses or parcels cannot be rededicated for new developments easily and often remain abandoned and deteriorated for years. This leads to inhabited buildings being detached from the rest of area with significant implications for community life and the risk of the elderly becoming increasingly lonely.
- Decreasing local sense of community: The aging population, combined with the young generation migrating away from the suburban areas into the city centers, has led to a decreasing local sense of community. Without a local community leader feeling responsible for strengthening the social cohesion, the everyday life of many residents becomes more and more isolated and anonymous.

### 4. Latest developments

Following several activities and an extensive one-year workshop held between the residents, the government and Tokyu corporation, which aimed to develop ideas and address the challenges of the village, “DRESSER WISE Tama Plaza” – as part of a concept for the “Next-Generation Suburban Planning” – was presented. The new development at the northern area of the train station is to be opened in September 2018. With three towers, the multi-purpose complex shall provide a co-working space, a nursery, after-school child-care facilities, a café and an event location open also to non-residents. Furthermore, the residential area will offer 278 units within just four minutes walk from the station and will entail facilities that are attractive for both, the elder and the younger generations. The project follows the idea of “WISE community living” (Fig. 5) by a consolidation of shopping, welfare, child care and medical care

within walking distance as well as joint activities of different generations to support multi-generation lifestyles and attract new residents to the community.



**Fig. 5: The WISE City concept in Utsukushigaoka<sup>3</sup>**

Further away from the station area, the utilization of vacant facilities and the integration of cafés and offices in the housing area for a mixed land use are the most relevant goals. While the latter shall provide opportunities for a livelier community that also attracts the younger generations with different lifestyles to move to the town, available vacant properties are an opportunity to experiment with different new concepts within the community. These can address issues like taking care of the elderly or of children, organizing joint activities or creating new areas for different kinds of community interaction.

## 5. Conclusion

The necessity of balancing the financial risk of a private railway company's TOD-involvement leads to the company's interest in not only planning but also maintaining residential areas, where the inhabitants actually enjoy living in the long term and thus ensure the profitability of the company's diversified business sectors. The site visit to Utsukushigaoka has shown both, the successful creation of an attractive village along a private railway as well as the importance of its permanent adaptation and re-invention to the ever-changing demands of the local community over the decades. This takes place in the common interests of the association of the railway company, the local authorities and the population.

<sup>3</sup> [http://www.mitsubishicorp.com/jp/en/pr/archive/2017/files/0000032791\\_file1.pdf](http://www.mitsubishicorp.com/jp/en/pr/archive/2017/files/0000032791_file1.pdf) [29.07.2017]