

REPORT

Integrate and Initiate: Fukuoka's Transport Infrastructure

Insights on sustainable transport infrastructure from a Japanese city.



Shopping centres, bus terminals and train terminals are integrated within Hakata Station.
Source: Masoud Akbari, wikimedia

As with other major Japanese cities, Fukuoka has a very high standard of public transport. Its relatively compact size makes it convenient for people to commute between different parts of the city. Here are four initiatives that have helped Fukuoka become the second most convenient city for commuting according to the Mori Foundation Global Power City Index in 2015.



Integrated multi-storey bus and train terminals maximise land use and convenience in the city centre. Source: Centre for Liveable Cities

1. Integrated transport hubs

A unique aspect of public transport in Fukuoka is its excellent integration of bus terminals with train terminals in the twin city cores of Tenjin and Hakata. Both have multi-storey bus terminals integrated with the train stations (Hakata being the key train interchange) and shopping malls. Unlike open-air bus terminals commonly found in many town centres in Singapore, this design maximises the use of valuable land in the city centre, and provides a high degree of convenience for commuters travelling within the city as well as to the rest of Kyushu region. Despite the concentration of bus services—both intra-city and long-distance express services—the city terminals do not seem to suffer from major traffic congestion problems.

2. Integrated cycling and bicycle parking facilities

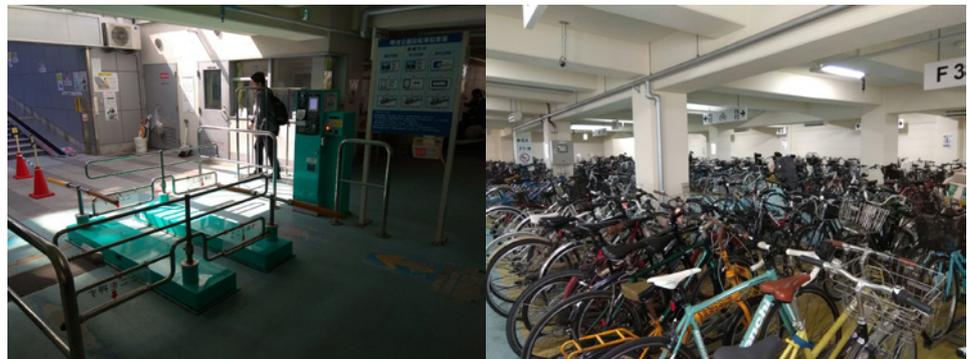
Cycling is a key part of the daily commute in Fukuoka. While the city does not have dedicated cycling tracks, the sidewalks along the main streets are generally wide enough for pedestrians and cyclists to share. Local streets are also designed with lower traffic speed limits, which facilitates space sharing between vehicles and cyclists.

Bicycle parking is also well provided for in the city, particularly in the form of underground spaces. At Hakata Station, parking is integrated into a subway entrance and the underground passageway leading to the station. Steps to the underground space were designed at a gentle gradient to allow for bicycle ramps and bike conveyor belts to run along the stairway. The integration of bicycle parking with subway infrastructure makes public transport an attractive and convenient option for cyclists as part of their journey.



Left: Bicycle parking is integrated into a subway entrance to promote the use of public transport.
 Right: Gentle stair gradients allow bicycle ramps to run along the stairway.
 Source: Centre for Liveable Cities

Another example that illustrates efficient land use for bicycle parking is Meiji Park. While having a public park at ground level, it uses half of its basement parking area for bicycle parking. Most bicycle parks require parking fees, which are generally affordable: from 1,200 yen (about SG\$15) a month for students to 1,900 yen (about SG\$24) a month for adults.



Bicycle parking at the basement of Meiji Park.
 Source: Centre for Liveable Cities

3. Taking ownership of the streets

The city encourages local stakeholders to propose street retrofitting works, such as sidewalk expansion and narrowing of carriageways to create a better environment for pedestrians. One street undergoing such retrofitting is Hakata Ekimaedori, a main thoroughfare that leads to Hakata Station. Local stakeholders had put up a proposal for sidewalks to be expanded and the carriageway to be narrowed along the road. They believed that a better environment for pedestrians and cyclists would eventually improve businesses for stakeholders. The city government, in turn, carries out the street improvement works, as it involves public land.

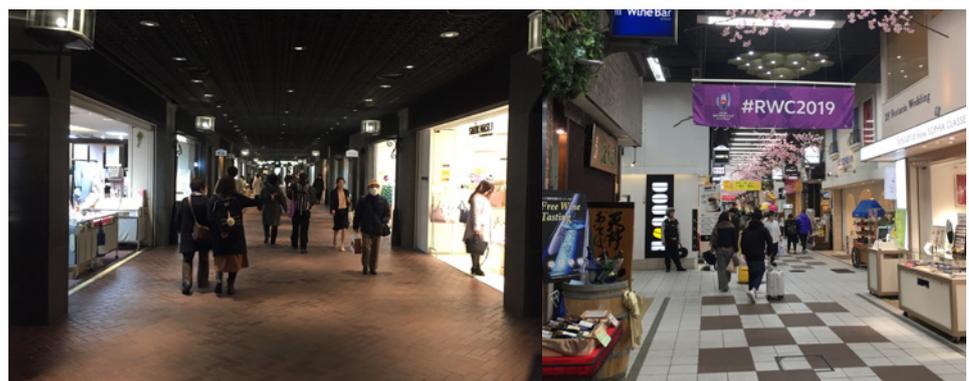


Signboards depicting citizen initiated sidewalk expansion and carriageway narrowing projects.
Source: Centre for Liveable Cities

In contrast, street-narrowing works in Singapore are typically carried out by the government, and almost never initiated by local residents. Some examples include programmes like “Silver Zone” or ad-hoc efforts at Bencoolen Street.

4. Business-initiated sheltered and underground pedestrian links

Hakata and Tenjin both have extensive pedestrian networks that extend from the respective train stations, both sheltered street-level linkages and underground passageways. Sheltered street-level arcades have shops on either side of the mall. Underground passageways generally connect directly to the malls, and range from more functional, basic walkways to well-designed street-like underground pedestrian thoroughfares such as the one at Tenjin. However, such major underground connections inadvertently dilute the street life above, which is visibly less lively.



Sheltered (left) and underground (right) pedestrian links have shops on either side, bringing vibrancy to the spaces. Source: Centre for Liveable Cities

These pedestrian links are mostly private sector initiatives. Even in the case of sheltered street-level arcades, which are typically fronted by small businesses rather than major developers, businesses would form local stakeholder associations and put up proposals to the city government to construct the shelters. As with the ground-up approach to sidewalk expansion at Hakata Ekimaedori, such active community participation in neighbourhood improvement is a key difference between Japan and Singapore in urban development.

Learning from Fukuoka

Singapore can glean two takeaways from Fukuoka's transport infrastructure.

Firstly, concepts such as integrated transport hubs optimise the use of land and make it convenient for commuters to switch between different modes of transport. This can range from integrated bus and train hubs to smaller examples, such as bike parking built into public parks and train stations.

Secondly, local stakeholders can play an active role in creating more walkable environments. In Japan, this could be a cultural factor, due to the prevalence of "machizukuri"—or community-led neighbourhood improvement—in cities and communities across the country. Local business or resident councils would typically work with a professional consultant to prepare an urban plan, and put up the proposal to the city government which would then review, approve and implement the plan. Through this process, social and community bonds are also strengthened, in addition to proposed physical enhancements in the neighbourhood.

Comparable programmes in Singapore include the Streets 4 People programme, which allows local stakeholders to put up requests for street closures in their neighbourhoods. Drawing from the experience of Japanese cities, similar programmes in terms of street improvement works could perhaps be initiated to promote benefits of walkable environments.

CLC researcher Remy Guo visited Fukuoka, Japan as an invited speaker of the "City Promotion and Urban Policy" seminar, organised by Fukuoka Directive Council in March 2018.

About the Writer



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About CLC

The Centre for Liveable Cities was set up in 2008 by the Ministry of National Development and the Ministry of the Environment and Water Resources, based on a strategic blueprint developed by Singapore's Inter-Ministerial Committee on Sustainable Development. Guided by its mission to distil, create and share knowledge on liveable and sustainable cities, the Centre's work spans four main areas - Research, Capability Development, Knowledge Platforms and Advisory. For more information, please visit us at <http://www.clc.gov.sg>

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