

# Investing in Quality Infrastructure and Smart Cities in Japan

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**Atsushi Ichikawa**

Assistant Vice-Minister, Minister's Secretariat  
Ministry of Land, Infrastructure, Transport and Tourism  
Government of Japan

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**1. Quality Infrastructure**

**2. Smart City**

**3. MLIT's Schemes to support PPP Projects**

**4. International Collaboration**

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# 1. Quality Infrastructure

## APEC 2018: Guidebook on Quality of Infrastructure Development and Investment (Revision)



**Asia-Pacific  
Economic Cooperation**

### 5 Elements that Ensure Quality of Infrastructure

1. Alignment with Development Strategy/Openness/Transparency/Fiscal Soundness
2. Stability/Safety/Resiliency
3. Economic and Financial Soundness: Cost-effectiveness including LCC and utilization of markets
4. Social and Environmental Sustainability
5. Local High-quality Development: Job creation/capacity building and transfer of technologies

# 1. Quality Infrastructure

## G20 Osaka 2019 : Principles for Quality Infrastructure Investment



### 6 Principles

1. Maximizing the positive impact of infrastructure to achieve sustainable growth and development
2. Raising Economic Efficiency in View of Life-Cycle Cost
3. Integrating Environmental Considerations in Infrastructure Investments
4. Building Resilience against Natural Disasters and Other Risks
5. Integrating Social Considerations in Infrastructure Investment
6. Strengthening Infrastructure Governance

# 1. Quality Infrastructure

## Examples of Quality Infrastructure Investment by Japan (Global)



Osman Gazi Bridge  
(Turkey)



Urban Transportation  
(Hawaii)



Seismic Isolated  
Building (Japan)



Highway  
Junction(Japan)



Capacity Building



Capacity Building

**Made with JAPAN**

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1. Quality Infrastructure

**2. Smart City**

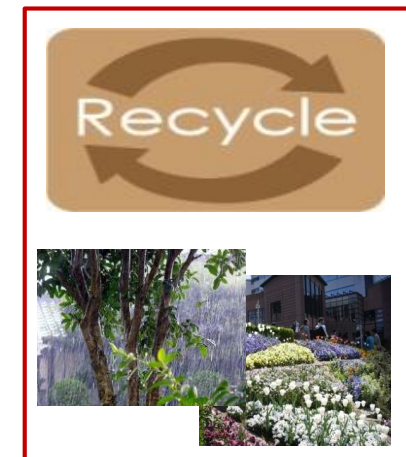
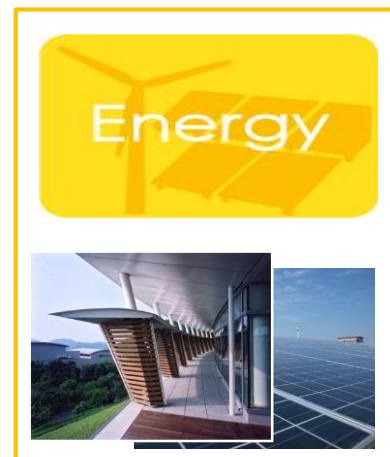
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### What is Smart City?

#### Definition by MLIT(as of August 2018)

A sustainable city or region which incorporates ICT and other new technologies to solve various challenges it faces and manages itself (planning, development, management and operation) for its overall optimization





## 2. Smart City : Real cases on smart cities in Japan

### (1) FUTAKO TAMAGAWA : Transit Oriented Development (TOD)

Since 2010  
Area 121,000m<sup>2</sup>  
Location 40min. from Tokyo station by train



Overview

#### Achievement : Revitalization of Potential Area

- Passengers of the hub station : **Increased by 58%**  
(105,000people/day to 165,000people/day)
- Land Price : **Increased by 25%**

#### TOD

- The hub station of two major train lines
- Commercial Areas, Hotels, Offices, Houses and Bus terminal directly connected with the hub
- Living with nature



Two major railway lines



Commercial Area

## 2. Smart City : Real cases on smart cities in Japan

### (2) Fujisawa Sustainable Smart Town : Town where energy to live is generated

Since 2010

Area 193,000 m<sup>2</sup>

Location 45 min. from Tokyo station by train.



Overview

#### Target

- Usage rate of renewable energy : **30%**
- Reduction of CO<sub>2</sub> emission : **70%**
- Retaining energy at least **3 days** even in blackout

#### HEMS (Home Energy Management System)

- All houses equipped with solar power generator, batteries and Fuel cell generator
- Integrated control system

#### Virtual Gated Town

- Security cameras
- Security concierges

#### Health care system

- Hospitals, Pharmacies, sports clubs and homes are connected by ICT.



## 2. Smart City : Real cases on smart cities in Japan (Future)

### (3) Maebashi : Autonomous Bus

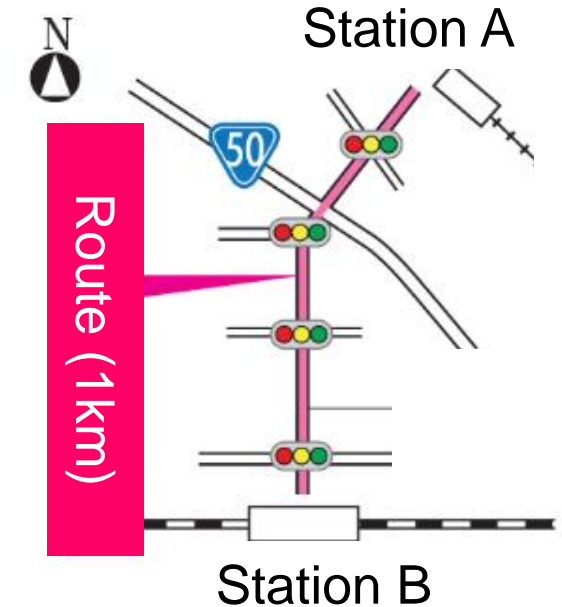
- The first Feasibility Study for Autonomous buses without driver's operation (conducted in a center part of the prefecture capital for more than 3 months)
- Operated on the street between two major stations
- Collaboration among Maebashi city, Bus operating company, University and MLIT



Autonomous Bus



Inside



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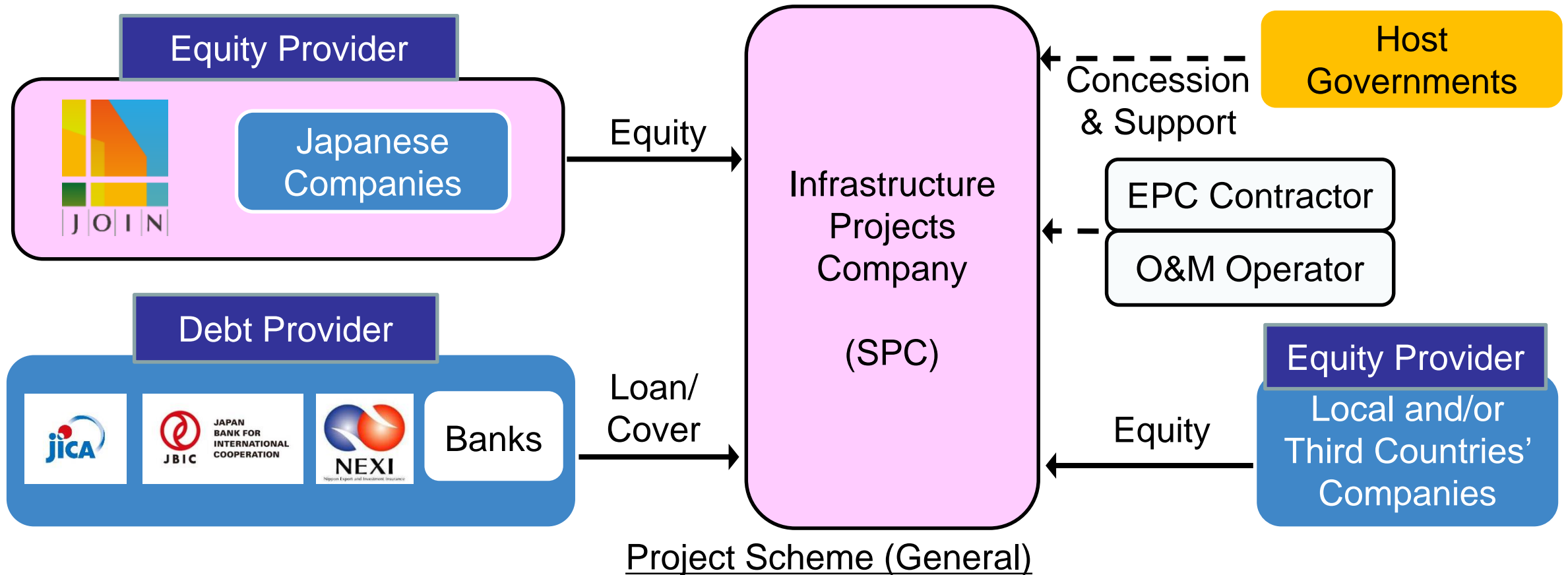
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### 3. MLIT's Schemes to support PPP Projects

#### Japan Overseas Infrastructure Investment Corporation (JOIN) since 2014

- The “**first**” and “**only**” government-private sponsored “**equity provider**” in Japan
- Collaboration with Japanese companies, financial institutions such as JICA, JBIC, NEXI
- Capital: **US\$556mn**, Investment Capacity : **US\$1.1bn** (FY2019)



# 3. MLIT's Schemes to support PPP Projects

## JOIN's Track record as of May 2019 (20 projects)

<p><b>Vietnam</b></p>  <p><b>Thi Vai International Port's Terminal Project</b></p> <p>JPY1.2 bn equity JPY0.85 bn guarantee Acted as Sponsor and Guarantor</p> <p>Oct 2015</p>	<p><b>USA</b></p>  <p><b>Texas High-Speed Railway Project</b></p> <p>JPY4.9 bn equity Acted as Sponsor</p> <p>Nov 2015</p>	<p><b>Brazil</b></p>  <p><b>Urban Passenger Railway Project</b></p> <p>JPY5.6 bn equity Acted as Sponsor</p> <p>Dec 2015</p>	<p><b>Myanmar</b></p>  <p><b>Landmark Project in Central Yangon</b></p> <p>JPY4.5 bn equity Acted as Sponsor</p> <p>Jul 2016</p>	<p><b>Indonesia</b></p>  <p><b>Mixed-use Urban Development Project in the Suburb of Jakarta</b></p> <p>JPY3.4 bn equity Acted as Sponsor</p> <p>Oct 2016</p>	<p><b>Indonesia</b></p>  <p><b>Cold Storage Warehouse Project</b></p> <p>JPY0.9 bn equity Acted as Sponsor</p> <p>Jan 2017</p>	<p><b>Indonesia</b></p>  <p><b>Jakarta Garden City Urban Development Project</b></p> <p>JPY5.0 bn equity Acted as Sponsor</p> <p>May 2017</p>
<p><b>Indonesia</b></p>  <p><b>Jakarta Southeast Capital Urban Development Project</b></p> <p>JPY3.0 bn equity Acted as Sponsor</p> <p>Jul 2017</p>	<p><b>Myanmar</b></p>  <p><b>Redevelopment of the Defence Services Museum Project</b></p> <p>JPY5.6 bn equity JPY4.7 bn guarantee Acted as Sponsor and Guarantor</p> <p>Jul 2017</p>	<p><b>Indonesia</b></p>  <p><b>Jakarta Mega Kuningan Urban Development Project</b></p> <p>JPY6.5 bn equity Acted as Sponsor</p> <p>Dec 2017</p>	<p><b>India</b></p>  <p><b>Brown-field Toll Road Project</b></p> <p>JPY9.6 bn equity Acted as Sponsor</p> <p>Dec 2017</p>	<p><b>Vietnam</b></p>  <p><b>Waterpoint Urban Development Project</b></p> <p>JPY1.9 bn equity Acted as Sponsor</p> <p>Aug 2018</p>	<p><b>USA</b></p>  <p><b>Sustainable Aviation Fuel Project</b></p> <p>JPY 0.9 bn equity Acted as Sponsor</p> <p>Aug 2018</p>	<p><b>Russia</b></p>  <p><b>Khabarovsk International Airport Development Project</b></p> <p>JPY 0.1 bn equity Acted as Sponsor</p> <p>Dec 2018</p>
<p><b>Thailand</b></p>  <p><b>Amata Nakorn Urban Development Project</b></p> <p>JPY 0.6 bn equity JPY 0.7 bn guarantee Acted as Sponsor and Guarantor</p> <p>Dec 2018</p>	<p><b>Myanmar</b></p>  <p><b>Thilawa Area Port Terminal Operation Project</b></p> <p>JPY 0.2 bn equity Acted as Sponsor</p> <p>Jan 2019</p>	<p><b>Myanmar</b></p>  <p><b>Thilawa Area Port Bulk Terminal Project</b></p> <p>JPY 1.7 bn equity Acted as Sponsor</p> <p>Jan 2019</p>	<p><b>Malaysia</b></p>  <p><b>Cold Chain Logistics Project</b></p> <p>JPY 3.6 bn equity Acted as Sponsor</p> <p>Jan 2019</p>	<p><b>Palau</b></p>  <p><b>International Airport Development Project</b></p> <p>JPY 0.3 bn equity Acted as Sponsor</p> <p>Jan 2019</p>	<p><b>Indonesia</b></p>  <p><b>Urban Dev. Project - Plaza Indonesia Project in the center of Jakarta</b></p> <p>JPY8.4 bn equity Acted as Sponsor</p> <p>May 2019</p>	

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## 4. International Collaboration

# ASEAN-Japan Smart Cities Network High Level Meeting

**Organizing High Level Meeting to discuss over the progress, lessons learned and how to overcome the challenges for achieving smart cities.**

- **Date :** October 8,9 and 11, 2019 (3 days)
- **Venue:** Yokohama, Japan
- **Participants:** More than 400 from Ministries of ASEAN Member and Japan, Chief Smart City Officers from ASCN Pilot Cities, Guests from other regions International organizations, Japanese private sectors, etc.



Networking



Infrastructure Tour



Experience of Culture



Thank you

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