# **Project Profile**



# Public-Private Partnership Private Finance Initiative





**Cabinet Secretariat** 

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# Introduction

Japan's national and local governments are facing severe financial conditions, a declining population, an aging society with a low birthrate, and an aging public infrastructure. To respond appropriately to these economic and social challenges while striking a balance between the development of social infrastructure and fiscal soundness, public-private partnerships that utilize the funds and ingenuity of the private sector must be considered as an effective way of revitalizing the economy and improving administrative efficiency.

The "Act on Promotion of Private Finance Initiative" (PFI Act) was enacted in Japan in July 1999. In March 2000, the following year, the "Basic Policy" was published, which sets forth the basic principles of PFI projects and policies to promote its smooth implementation, laying out the legal and institutional framework for the promotion of PFI projects.

Between 1999, when the PFI Law was enacted, and 2020, the total number of PFI projects implemented in Japan reached a cumulative total of 875, with a total contract value of approximately USD 61 billion. Although the number of projects implemented decreased last year due to the spread of the novel coronavirus infection, PFI has become one of the preferred methods of developing social infrastructure and is steadily gaining traction.

Meanwhile, in overseas markets, due to the huge demand for funds for infrastructure development and the reluctance of governments in emerging countries to accept foreign loans, PPP methods for infrastructure development and operation have become an increasingly important topic. Based on the "2025 Policy Program for Promotion of Overseas Infrastructure Systems" formulated in December 2020, the Japanese government is actively involved in forming PPPs from the upstream, including support for the establishment of the system and awarding projects to receiving orders for PPP projects in which Japanese companies can participate. The government is working to build a unified public-private partnership system based on intergovernmental approaches, including yen loans for O&M, Overseas Investment Loans, support from public financial institutions, and building relationships with local partners.

This Project Profile introduces the institutional framework of PPP/PFI in Japan and PPP/PFI project experiences by Japanese companies in Japan and abroad to foreign governments, public institutions, and other parties involved in PPPs around the world.

We hope that this Project Profile will deepen your understanding of Japan's efforts in PPP/PFI and be actively used in your countries, as you consider partnering with our government and private institutions.

Section 1 PPP/PFI in Japan

# 1. What are PPPs/PFIs

# PPP<Public-Private Partnership>

PPP (Public-Private Partnership) is a generic term for the partnerships formed between the private sector and public institutions, in which the government and the private sector collaborate in the design, construction, maintenance, management, and operation of public facilities, etc., to provide better public services through the efficient use of financial resources and improved administrative efficiency. There are many types of PPPs depending on the scope of work undertaken by the private sector, and PFI is one type of PPP. Besides PFI, many PPP methods are used in Japan, such as the designated manager system, comprehensive private-sector consignment, leasing of public land to private sectors, etc.

# PFI < Private Finance Initiative >

# Basis Laws: Act on Promotion of Private Finance Initiative (PFI Act)

PFI is a type of public procurement method in which all or part of the construction, maintenance, management, and operation of public facilities, etc., is carried out by utilizing private sector funds, management, and technical capabilities implemented under the PFI Act. In the development of public facilities, instead of ordering design, construction, maintenance, management, operation, separately, these tasks are carried out under a comprehensive, multi-year, long-term contract based on the concept of a performance-based ordering, which maximizes the capabilities of the private sector to provide public services of superior quality at a lower cost. In Japan, since the enactment of the PFI Act in July 1999, many PFI projects have been implemented in compliance with this law.



# **Expected effects of the PPP/PFI**

PPP/PFI projects create new business opportunities by utilizing private sector funding, managerial know-how, and technical capabilities, thereby creating a virtuous cycle in the local economy and contributing to reducing public burdens and achieving fiscal soundness. The effects of introducing PPP/PFI vary depending on the project's nature, but mainly, the following effects are expected.

#### (1) Cost reduction effect

By placing a comprehensive order that integrates all or part of a project's design, construction, maintenance, management, and operation, the private sector is given more discretion, allowing more room for creativity, and is expected to reduce costs. During the course of a project, there is a possibility that losses may occur due to various unpredictable events such as fluctuation in demand, changes in economic conditions, including price and interest rate fluctuations, and natural disasters, etc. However, having proper risk management in place for the entire business based on the principle of PFI that the person who can best manage these risks bears the risk can have the effect of lowering the overall costs.

#### (2) Improvement of the quality of public services

By placing performance-based orders, the quality of services is expected to be improved by allowing the private sector more room for creativity that applies the unique experience of the private sector. For example, in the case of facilities that attract visitors, it is more likely that the quality of services will be improved if the design, construction, maintenance, management, and operation are outsourced to private sectors that have sufficient know-how in the operation of the facilities, rather than the public sectors implementing the projects themselves. The new forms of partnership between the public and private sectors, with an appropriate division of roles, will lead to better public services as a whole.

#### (3) Revitalization of the local economy (regional revitalization)

By handing over projects traditionally carried out by the national or local governments to the private sector, new business opportunities and job-creation effects will be created. Additionally, by maximizing the use of the ideas and knowledge of local companies in the development and operation of public facilities, it will become possible to develop facilities and provide public services that meet the specific needs of local residents. Furthermore, PPP/PFI projects are expected to promote regional economic development and the creation of new local communities by increasing the value of surrounding areas through the utilization of surplus land.

#### Main features of PPP/PFI

#### **Comprehensive ordering:**

In contrast to the conventional approach, which in principle "separates and divides work by task and places orders in a single year," the PPP/PFI method generally "places an order in multiple years that encompasses multiple tasks." In most PFI projects, the design, construction, maintenance, management, and operation are comprehensively ordered over multiple fiscal years.

#### Performance-based ordering:

In performance-based ordering, the client does not place an order based on detailed specifications and conditions of the project but rather by specifying the obligations to be fulfilled by the private business operator (work requirement level), focusing on the output (performance). In implementing the project, the method proposed by the private sector is adopted on the premise that the conditions stipulated in the required level of work are satisfied, thus allowing the private sector more room for creativity and ingenuity than the conventional method.



Public culture facility development project (Higashine, Yamagata)

# 2. Project Experiences

As of March 2021, the cumulative number of PFI projects implemented under the PFI Act is 875, and the cumulative contract value has reached approximately USD 61billion<sup>1</sup> (7 trillion yen) <sup>2</sup>. In Japan, the PFI method is used in various business sectors, as per the following breakdown.

292 projects for educational and cultural facilities (social education facilities, cultural facilities, etc.), 220 projects for development (roads, parks, urban sewerage facilities, port facilities, etc.), 131 projects for health and environment (medical facilities, waste disposal facilities, funeral halls, etc.), 76 projects government buildings for and dormitories (office buildings, civil servants' dormitories, etc.), 27 projects facilities. for industry (tourism agricultural development facilities, etc.), projects for security 26 (police, firefighters, etc.), 25 projects for living and welfare (welfare facilities, etc.) and 78 projects for other fields (complex facilities, etc.)

<sup>1</sup> The figures shown are different from the project scale used in the "Action Plan for PPP/PFI Promotion."

<sup>2</sup> Exchange rate: 113.36yen/\$ (2021/12/08)

#### VFM (Value for Money):

Based on the results of a survey of VFM trends for projects in which implementation policies were announced between 1999 (enactment of the PFI Law) and fiscal year 2015, shows that VFM at the time of award of the projects were around 17.9% for the "services purchase type" and 23.1% for the "mixed type."



#### Number of PFI Projects 875

#### (Note)

The number of projects indicated is the number of projects implemented under the PFI Act as identified by the Cabinet Office survey through the publication of the implementation policy and does not include projects which were canceled or discontinued during the service provision period or projects that were abandoned after the announcement of the implementation policy.

# Contract Value of PFI Projects USD 61billion (JPY 7 trillion)



#### (Note)

The contract value is the total of the initial contract amount for projects in which the implementation policy was made public and for which public expenditure was determined for the relevant fiscal year, as ascertained by the Cabinet Office survey. The contract amount does not include the compensation for operating right under the "the right to operate public facilities system," which is a different indicator from the project scale in the "Action Plan for PPP/PFI Promotion."

# 3. Institutional framework

# (1) Summary of the "Act on Promotion of Private Finance Initiative" (PFI Act)

The PFI Act is a Japanese law that stipulates PFI projects that introduce a method of entrusting the design, construction, maintenance, management, and operation of public facilities to the private sector.

The Law was enacted in July 1999 and stipulates procedures and regulations for the smooth implementation of PFI projects, including the basic principles and implementation policies of PFI, special measures for lending of national and public property, fiscal and financial support, matters related to the "committee for the promotion of PFI," and the introduction of the "right to operate the public facility, etc."

#### Purpose (Article 1 of the PFI Act)

"The purpose of this Act is to improve the social infrastructure efficiently and effectively and to ensure the provision of affordable and good service to the citizens by taking measures for promotion of provision etc., of the public facility, etc., through utilization of private finance, management abilities and technical capabilities, thereby contributing healthy development of the national economy."

#### Facilities (Article 2 of the PFI Act)

The term "public facility, etc." as used in the PFI Act means the following facilities (including equipment):

- **1. Public facilities**: roads, railways, ports and harbors, airports, rivers, parks, water services, sewage systems, and industrial water supplies.
- 2. Official facilities: government buildings and accommodations.
- **3.** Public interest facilities and leased housing: leased housing, educational and cultural facilities, waste treatment facilities, medical facilities, social welfare facilities, offender rehabilitation facilities, parking, and underground malls.
- **4. Other facilities**: Information and communications facilities, heat supply facilities, new energy facilities, recycling facilities, tourist facilities, research facilities, transportation facilities such as vessels, aircraft, etc., and artificial satellites.

#### The administrator of Public Facility (Article 2 of the PFI Law)

In the PFI Act, the term "Administrator of Public Facility, etc." refers to the national government (heads of ministries and agencies), authorities of local governments (prefectural governors, mayors of municipalities, etc.), independent administrative agencies, special corporations, and other public corporations.

#### Basic Principles (Article 3 of the PFI Act)

"In implementing a project for the provision, etc. of a public facility, etc., its implementation is to be entrusted to private businesses as much as possible, if the project is suitable for entrustment. In deciding the suitability of entrusting those projects, consideration is to be given to factors such as appropriate division of roles between the national government and local governments, efficient use of public funds; improvement in efficiency of public administration, or efficient utilization of assets owned by the national and local governments, and; whether the revenue generated by the project will prove sufficient to pay the costs involved."

# Utilization of the Private Finance Initiative Promotion Corporation of Japan

The Private Finance Initiative Promotion Corporation of Japan, which functions as an infrastructure fund formed through public-private partnerships, was established in October 2013 with government and private sector investments to disseminate and promote PFI projects, specifically the self-supporting accounting type. In Japan, a full-fledged market for the supply of risk money for infrastructure development has not yet been established and this has been an obstacle to the financing of self-supporting accounting type projects. The Private Finance Initiative Promotion Corporation of Japan promotes PFI projects by providing risk money (acquisition of preferred stock, subordinated bonds, etc.) as a stimulus to attract private sector investment in infrastructure projects.





General gymnasium development & operation project (Fukuoka, Fukuoka)

#### Promotion and implementation structure

- The PPP/PFI Promotion Office, Cabinet Office, Government of Japan, has jurisdiction over the PFI Act and is responsible for promoting PPP/PFI in Japan. The office develops specific measures for promoting PPP/PFI, such as the "Action Plan for PPP/PFI promotion," organizing the "Committee for the promotion of PFI," and other committees that deliberate on essential measures related to PFI, supporting local governments' initiatives, and work on revisions to the PFI Act.
- In implementing PPP/PFI projects, departments within the ministries, agencies, local governments, and public corporations with jurisdiction over the facilities will carry out everything from feasibility studies to the closing of project contracts as an implementing agency.

#### The Council for the Promotion of PFI

The Council for the Promotion of PFI is a special body established within the Cabinet Office under the PFI Act to deliberate on important matters related to PFI, including the drafting of basic policies for PFI projects implementation, mutual coordination among related administrative agencies, deliberation on other essential issues associated with PFI measures.

#### Chairman: Prime Minister

Members: Ministers of State other than the Chairman, designated by the Prime Minister (all Ministers of State)

#### The Committee for the Promotion of PFI



The Committee for the Promotion of PFI is a committee consist of academia and people with practical experiences established to collect information from the expert perspective that will contribute to the sound promotion of PFI projects, and conducting the necessary research and deliberation and overall coordination with the government on the implementation status and opinions from private sectors.

#### **Planning Sub-committee:**

The Planning Sub-committee monitors the progress of the "Action Plan," etc., and investigates and deliberates on necessary revisions to ensure the reliable implementation of the plan.

#### **Project Promotion Sub-committee:**

Project Promotion Sub-committee investigates and deliberates on measures and systems necessary for promoting PFI, etc.





Wide area administrative union incineration plant development & operation project (Gotemba, Oyama, Shizuoka)

# (2) Project Types and Project Methods

# **Project Types**

In this section, two classifications will be explained: one from the perspective of how the PFI operator generates revenue from the development and the provision of public services (recovery method), and the other from the classification based on the "Action Plan for PPP/PFI Promotion" which is used to monitor the numerical targets of each category.

# Classification based on the cost recovery method

# (1) Service Purchase type

Service purchase type is a type in which the national or local government pays a "service purchase fee" as compensation for the public service provided by the PFI operator, and this fee becomes the PFI operator's revenue. This type of PFI is the most widely used in Japan and often applied for constructing public facilities such as government buildings, schools, and public housing, etc., where it is difficult to generate revenue from the project. The PFI operator recovers the construction cost through the "services purchase fee" paid by the public.

# (2) Self-Supporting Accounting Type

The self-supporting accounting type is a type in which the PFI operator recovers the cost of construction, maintenance, and operation through revenues from "user fees" collected from the users of the public services provided by the PFI operator. This type of PFI is used in constructing airport passenger terminal buildings, public parking, etc., and in the case of the airports, the revenue from the project comes from airport charges collected from airline passengers, etc.

# (3) Mixed type

A mixed type is a form of PFI that mixes the "service purchase type" and the "self-supporting accounting type," in which the PFI operator's business revenue is derived from both the service purchase fee paid by the public and the user fee paid by the users of the public service. This type of PFI is applied for facilities such as lodging facilities, hot springs, athletic facilities, etc., which are operated by collecting user fees from the users. Compensation for the construction and maintenance of the public facility is paid by the public in the form of a service purchase fee, and during the operation period, the revenue is generated from the user fees.









"Michino-eki," Kawano-eki" PFI project (Kannami, Shizuoka)



Yanagishima sports park development project (Chigasaki, Kanagawa)

#### Categorization based on the "Action Plan for PPP/PFI Promotion"

The project categories based on the "Action Plan for PPP/PFI Promotion" is a classification unique to Japan used to monitor numerical targets for each categories in the Action Plan, and is revised every year. The priority of initiatives is determined for each of the four categories every year, and the scale of projects to be pursued is set to manage numerical targets.

#### (1) PFI Projects utilizing the Right to Operate the Public Facility, etc. System (Concession) (Category I)

The Right to Operate the Public Facility, etc. System (concession) is a system in which the public entity retains ownership of public facilities, while the private operator is given the right to manage the facilities. It is often applied for airports, water and sewage systems, MICE facilities, and other public facilities that collect usage fees. By entrusting the facility's operation to the private operator, including determining usage fees, allows the public operator to operate the business with a high degree of freedom.

# (2) PPP/PFI projects which costs are recovered through business income, such as the Co-location and use of revenue-generating facilities ("Profit – oriented type projects") (Category II)

There are mainly two types of revenue-generating projects: the "user fee revenue type," which recovers costs through the revenue from public facilities, and the "private facility attached type," which adds private facilities to public facilities. The revenue potential of facilities varies, ranging from those that can recover all of their maintenance and operation costs through user fees and revenue-generating projects to those that can recover only some of their operating costs. However, even if only a portion of the costs can be retrieved, revenuegenerating projects are to be actively promoted from the perspective of contributing to the reduction of public burdens.

#### (4) Other PPP/PFI projects (Category IV)

Traditional PPPs such as the "designated manager systems" and "comprehensive private sector consignment," which belongs to this category, are being encouraged to promote as they are expected to play a role as the first step in the adoption of PPP/PFI methods for local governments that have no experience in PPP/PFI projects, and also because they have the potential to develop into "right to operate public facility projects" in the future. As for the "service purchase type PFI," which is the most widely used type in Japan, has been implemented mainly in the field of "hakomono" (public buildings), but as we move on, the scope of its use is to be expanded from "hakomono" to the infrastructure projects.

#### (3) PPP projects for the effective use of public real estate (public real estate utilization projects) (Category III)

By effectively using underutilized public real estate, it is expected that public-private partnerships will create more vitality in the city, enhance the "value" of the region, and create new investment and business opportunities. In recent years, there have been many examples of projects in which surplus land is created by the reorganization and consolidation of public facilities by the private operator in conjunction with the development of public facilities.



#### **Project Methods**

There are several PFI project methods, such as BTO, BOT, BOO, and RO etc., depending on the ownership of the facility and the scope of the contract.

BTO method (Build Transfer and Operate)	The "BTO" is a method in which the private sector designs and constructs a facility (Build) and then transfers ownership (Transfer) to the public immediately after completion. Then the private sector maintains and operates the facility (Operate).
BOT method (Build Operate and Transfer)	In the "BOT" method, the private sector retains ownership of the facility from the design and construction (Build) to the maintenance, management, and operation (Operate) of the facility and transfers ownership to the public after the project (Transfer) is completed. Since the private operator retains ownership of the facility throughout the project period, it has the advantage of allowing flexible management of the facility.
BOO method (Build Operate and Own)	Unlike the "BOT" method, the facility's ownership is not transferred to the public after completing the project, and the project is either continued or terminated by removing the facility.
RO method (Rehabilitate Operate)	"RO" is a method in which the private sector raises its funds, renovates and repairs the existing facilities, and operates them.



# The Right to Operate Public Facilities, etc., method



"The Right to Operate Public Facilities, etc. method" is a method in which the public entity retains ownership of the facility, while the private operator is given the right to operate the facility. The public entity delegates the facility's management, including the determination of usage fees, to the private operator, allowing the private operator to operate the facility with a high degree of freedom. Operating rights can be established for both existing and new facilities. The operating rights are recognized as property rights that can be transferred, and the financial institutions can establish mortgages on the operating rights for public facilities, which has the benefit of facilitating financing. In Japan, "the right to operate public facilities system" was introduced in 2011 with the revision of the PFI Act. To date, 41 projects have been successfully implemented in various sectors, including airports, sewerage plants, etc., as a result of intensive efforts to promote the system as a priority area in the Action Plan.

# (3) Action Plan for PPP/PFI Promotion

The "Action Plan for PPP/PFI Promotion" has its origin in the "Action Plan for Fundamental Reform of PPP/PFI" determined by the Council for the PFI in June 2013. It is a comprehensive plan for the government's effort to improve the necessary environmental arrangements, provide support to local governments, and develop systems by compiling the necessity of institutional responses and specific measures to be newly implemented as an action plan. Every fiscal year, the PPP/PFI Promotion Office reviews and improves the priorities according to the progress made with the major measures that were taken previously.

# (4) Guidelines, Manuals, etc.

The PPP/PFI Promotion Office prepares guidelines, manuals, case studies, etc., as tools to support the introduction and smooth implementation of PPP/PFI methods and provides the information widely through its website. ( https://www8.cao.go.jp/pfi/ ) Each ministry, agency, prefecture, and ordinance-designated city also prepares its own guidelines to provide guiding principles, etc., to promote the use of PPP/PFI methods.

Guidelines and Manuals	Date of Revision
Guidelines on PFI Projects Implementation Process	2021/6
Guidelines on Risk Allocation, etc. in PFI Projects	2021/6
The Guidelines on Value for Money (the VFM)	2018/10
Contract Guidelines - Key Points on PFI Project Contracts	2021/6
A Guideline for Monitoring	2018/10
Guidelines on the Right to Operate the Public Facility, etc. and the Public Facility, etc., Operating Project	2021/6
Manual for feasibility study simplification for PPP/PFI	2019/3
Manual for Simplifying Procedures for Implementing Service Purchase-Type PFI projects for local governments	2014/6
Manual for Private Sector Proposal for PPP/PFI Projects	2021/4
Ex-post evaluation manual for PFI projects	2021/4
Manual for Regional Platform Operation	2017/3
Guidance on PFI Project Introduction	2003/3
Guidance on Developing Rules for Priority Consideration for the Introduction of PPP/PFI Methods	2016/3
Guidance on Operating Rules for Priority Consideration for the Introduction of PPP/PFI Methods	2017/1
Basic approach to non-ownership methods for public facilities	2021/4

#### <Guidelines and manuals etc., published by the PPP/PFI Promotion Office, Cabinet Office>



Former Kanda Family attached townhouses project (concession) (Tsuyama, Okayama)

# (5) Support measures for promotion

To promote PPP/PFI methods, the government implements various support measures for local governments. This section explains the main support measures provided by the PPP/PFI Promotion Office.

# 1. Operational Support for the "Rules for Priority Consideration."

"Rules for Priority Consideration" stipulate that PPP/PFI methods shall be considered over conventional methods when developing public facilities, etc. The rules serve as the basic framework for promoting PPP/PFI projects in local governments, enabling verification of the optimal methods by comparing PPP/PFI methods with conventional methods for projects above a certain size. In addition, evaluation details are made public, ensuring objectivity and accountability to the public. The PPP/PFI Promotion Office continuously supports developing specific projects through the formulation and the application of the rules to promote practical priority studies, including follow-up on the status of formulation and sharing good practices carried out by local governments.

# 2. Support for the formation of "Regional Platforms."

"Regional platforms" is a framework that enables local private sector operators, local financial institutions, local governments, experts, and other parties familiar with the issues and conditions of the region to gather, acquire knowhow, and exchange information to improve the ability to form PPP/PFI projects. In addition to training and study sessions to acquire know-how, the regional platforms reflect the opinions of local private sector businesses by holding public-private dialogues on specific projects. By sharing information on projects in the pipeline at an early stage, the platform is effectively used to draw out the planning, proposal, and project execution capabilities of private sectors.

#### 3. Support for Dispatching PPP /PFI Experts

To promote the autonomous formation of PPP/PFI projects in local governments, the PPP/PFI Promotion Office implements a system to dispatch experts with specialized knowledge, know-how, and experience to support local governments and other organizations engaged in PPP/PFI projects. The office holds seminars to study the basic concepts and approaches of PPP/PFI methods, introduces case studies of projects that have been implemented in the past, and provides consultation on questions and issues related to the introduction of PPP/PFI methods for the projects under consideration.

#### **Other Supports**

- A system to dispatch PPP/PFI administrative experts to local governments by certifying and registering local government officials as "PPP/PFI administrative practice experts" who possess extensive practical experience and achievements in administrative practices, such as the establishment of internal promotion systems and rules for consideration, budgetary responses, parliamentary responses, and internal consensus building.
- Financial support for PPP/PFI consideration studies covering initial costs of feasibility studies, etc., required when implementing the PPP/PFI projects.
- The "One-Stop Window System" established in the fiscal year 2018 with the revision of the PFI Act is a system that allows the administrator of public facilities, etc. and a private business operator seeking to implement a PPP/PFI project to collectively inquire and confirm the details of support measures and the applicability of regulations via the One-Stop Window established within the PPP/PFI Promotion Office.



# 4. Supporting Public Agencies in overseas business

# JICA - Japan International Cooperation Agency -

JICA, as the centralized agency for Japan's official development assistance, has 15 offices in Japan and about 100 overseas and is currently implementing ODA projects in more than 150 countries and regions. Utilizing the local information and extensive network accumulated through ODA projects, JICA continuously provides support from upstream including the development of PPP-related laws in developing countries, as well as support through feasibility studies and financing for the implementation of overseas PPP projects executed by local government and private companies. Specifically, JICA has developed comprehensive schemes to support developing countries through Overseas Investment Loans for projects with high economic impact executed by private companies and yen loans such as Equity Back Finance (EBF) loans, Viability Gap Finance (VGF) loans, and PPP infrastructure credit enhancement stand-by loans for PPP projects implemented by governments of developing countries. JICA also provides support for the implementation of preparatory studies, which assist in the development of business plans based on proposals from companies that plan to implement projects utilizing Overseas Investment Loans.

#### JBIC - Japan Bank for International Cooperation -

JBIC, a public institution wholly owned by the Japanese government, aims to complement the financing provided by privatesector financial institutions, while 1) promoting the overseas development and securement of resources which are important to Japan, 2) maintaining and improving the international competitiveness of Japanese industries, 3) promoting the overseas business having the purpose of preserving the global environment, such as preventing global warming, and 4) preventing disruptions to international financial order or taking appropriate measures with respect to damages caused by such disruptions. JBIC's objective is to contribute to the sound development of Japan and the international economy and society by conducting its operations in the four areas mentioned above. To achieve its objectives, JBIC provides support for the overseas development of Japanese companies and for the improvement of the business environment in host countries through a menu of financial services, including export loans, import loans, overseas investment loans, untied loans, and equity participations.

URL https://www.jbic.go.jp/en/index.html

# NEXI - Nippon Export and Investment Insurance -

NEXI is a 100% government-owned special stock company, and is the only public agency in Japan responsible for trade insurance. NEXI's trade and investment insurance covers risks associated with international trade and other overseas transactions that cannot be covered by private-sector insurance. The purpose of trade and investment insurance is to support and promote companies on overseas business development by mitigating the risks associated with foreign trade and overseas investment. The main types of NEXI's trade and investment insurance are 1) Export Credit Insurance, which covers losses resulting from inability to collect payment after the cargoes have been shipped or after the technology has been provided, 2) Overseas Investment Insurance, which covers losses incurred by Japanese companies due to force majeure and 3) Loan Insurance, which covers losses incurred by Japanese companies, banks, and other institutions, that provide a foreign government or company with business funds for overseas projects, if they are unable to collect the loans. In December 2020, in response to the Covid-19 pandemic and its consequences, NEXI launched a new business strategy called "LEAD Initiative". It aims to proactively support financing projects that will contribute to achieving carbon neutrality and SDGs.

URL https://www.nexi.go.jp/en/index.html

#### JOIN - Japan Overseas Infrastructure Investment Corporation for Transport & Urban Development -

JOIN is a public-private infrastructure investment fund company established in 2014, specialized in overseas infrastructure projects such as transportation and urban development. JOIN's aim is to promote active entry of Japanese companies into overseas markets for projects that utilize Japanese knowledge, technology and experience, and contributing to the sustainable growth of the Japanese economy. JOIN not only provides equity, but also provides supports such as dispatching executives to the projects. There is no limitation on the areas and countries (developed or emerging) and JOIN can provide consistent support to projects, from the project development stage (greenfield) to the business operation stage, O&M (brownfield). JOIN aims to actively promote support not only for typical transportation and urban development projects, but also for new technology fields such as smart cities, TOD/public transport-oriented development and MaaS, as well as for a wide range of infrastructure fields that support these projects.

■URL https://www.join-future.co.jp/english/







# JICT - Fund Corporation for the Overseas Development of Japan's ICT and Postal Services – **JICT**

JICT is a public-private fund established in 2015 with investments from the Japanese government and private businesses. While considering the subsidiarity nature with the private businesses, JICT supports those who are engaged in doing business overseas in telecommunications, broadcasting, postal services, and to those who support these businesses, and as of the end of December 2021, a cumulative total of 78.4 billion yen has been provided in support as funds and loans. Telecommunications, broadcasting, and postal services are regulated sectors, and there are various risks involved in conducting these businesses overseas. To achieve its objective of contributing to the sustainable growth of the Japanese economy by improving the profitability of Japanese businesses, JICT bears a portion of the risk and provides investment and hands-on support from the stage of project identification and formation to post-investment business operations, in cooperation with related organizations, and promotes the overseas development of Quality Infrastructure through the expansion of the supply of risk capital.



Moray East Offshore Wind Power Generation Project (UK)

# Section 2 Project Profile

# **Domestic Projects**

01	Public Sewage Treatment Plant in Hamamatsu	SEWERAGE
02	Effective use of Sewage Sludge at the Southern Sludge Recycling Center in Yokohama	SEWERAGE
03	Biomass Recycling Facility in Kurobe Sewage Treatment Plant	SEWERAGE
04	Composite-type Biomass Facilities in Toyohashi City	SEWERAGE
05	Kitanagoya Waste Treatment Plant Project	WASTE MANAGEMENT
06	Tokyo International Airport International Zone Development	AIRPORT
07	Sendai Airport Operation Project	AIRPORT
08	Sawara Wide-area Exchange Center PFI Project	RIVER
09	Tama Regional Core Hospital and Chidren's Medical Center	HOSPITAL
10	Takeshiba District Urban Renewal Step-up Project	URBAN DEVELOPMENT
11	Minato Mirai 21 Central District 20 City Blocks Meeting & Event Facility Development Project	MICE
12	Central Government Building No.7 Development	GOVERNMENT BUILDING
13	Osaka Toyonaka Shin-Senri Higashi Housing Project	HOUSING

# **Overseas Projects**

14	Nam Ngiep 1 Hydropower Project	ENERGY
15	Dariali Hydropower Plant	ENERGY
16	Meghnaghat Natural Gas-Fired Combined Cycle Power Plant	ENERGY
17	Dubai Energy-from-Waste Project	WASTE MANAGEMENT
18	Water Purification Plant in Cambodia	WATER
19	Chinggis Khaan International Airport Construction and Operation Project	AIRPORT
20	Toll Road Business in India	ROAD
21	Toll Road Business in Indonesia	ROAD
22	Lach Huyen Port Construction Project	PORT
23	Intercity Express Programme	TRANSPORTAION RAIL
24	The Başakşehir Çam & Sakura City Hospital PPP Project	HOSPITAL

This is a project to establish a 20-year operation right for the Seien Sewage Treatment Center, Hamana Relay Pumping Station, and Akura Relay Pumping Station, which are the main facilities in the Seien Public Sewerage district of Hamamatsu City, to carry out operation and maintenance of the facilities including renovation of mechanical and electrical equipment. The project is being carried out under the concession system, which utilizes the management and technological expertise of the private sector as a measure to cope with the increasing demand for renewals due to the aging and aseismic reinforcement in the face of declining fee revenues associated with the population decline.

The project is the first concession case in Japan in the sewerage sector, and is being managed by Hamamatsu Water Symphony K.K., an SPC led by Veolia Japan K.K., a Japanese subsidiary of a French company.

# Project Detail

IMPLEMENTING AGENCY : Hamamatsu City (Shizuoka Prefecture)

#### **PRIVATE -SECTOR COMPANIES :**

Veolia Japan K.K., Veolia Jenets K.K., JFE Engineering Corporation, Orix Corporation, Tokyu Construction Co., Ltd., Suyama Construction Co., Ltd.

#### **SCOPE OF WORK :**

Operation including O&M, refurbishment of the mechanical and electrical equipment for the Seien Sewage Treatment Center, Hamana Relay Pumping Station, and Akura Relay Pumping Station. (Excluding civil and building renovation)

TYPE OF PPP :	Concession
CONTRACT DURATION :	20 years (Start of Operation 2018/4)

**CONSTRUCTION PERIOD** :

#### **PROJECT VALUE :**

USD \$221 million (Total cost of renovation work) USD \$22.1 million (Operating Rights Consideration)

Note: exchange rate 2017/10/31 113.16 yen/\$

# Key Features

- The project is expected to reduce costs by approximately USD\$76.5 million over the next 20 years, by combining renovation and maintenance scope into a package, as well as operational improvements made possible by world-class expertise in sewage treatment operation. The cost reductions are also achieved by increasing operational efficiency through the use of cutting-edge information technology, operation support tools and multi-functional tablets.
- The facilities included in the scope of the project are the treatment center and the two pumping stations. Maintenance and management of the pipelines are not included in the scope of the project of the operator, because it is more efficient for the city to manage them together with other treatment areas. Meanwhile, by entrusting all renovation work except for civil engineering and building renovations to the operator, the operator is given a high degree of freedom in maintenance and management operations.





Yokohama Nambu Sludge Treatment Plant Sludge-to-Fuel Conversion Project Yokohama, Kanagawa

# Project Overview

This is a project to update the aging sludge incinerator (No. 3 furnace) at the Southern Sludge Recycling Center in Yokohama city, to build, manage, and operate a fuel conversion facility for the effective use of the residue generated in the final process of sewage treatment. The PFI method was adopted since it was expected to make the project more economical and less environmentally harmful by utilizing the private sector's unique technology and ingenuity. The contract period is set for 20 years, and by placing performance base orders for the entire project, the financial burden is expected to be reduced by about 20%. Biocoal Yokohama Nambu Co., Ltd., a special purpose company established by Electric Power Development Co., Ltd., Tsukishima Kikai Co., Ltd. and others, is responsible for the construction, operation and management of the facility.

# Project Detail

IMPLEMENTING AGENCY : Yokohama City (Kanagawa Prefecture)

#### **PRIVATE -SECTOR COMPANIES :**

Electric Power Development Co., Ltd., Tsukishima Kikai Co., Ltd., Tsukishima Technology Maintenance Service Co., Ltd., Biocoal Plant Service Co., Ltd.

#### **SCOPE OF WORK :**

Demolition of existing facility, Design, Construction, O&M of fuel conversion facility and general management.

TYPE OF PPP :	BTO (Service purchase)
CONTRACT DURATION : (Design, Construction 3 y	24 years years 8 month, O&M 20 years)
CONSTRUCTION PERIOD :	2012/8 - 2016/3
PROJECT VALUE :	USD \$190 million

Note: exchange rate 2012/8/30 78.60 yen/\$

# Key Features

- The residue generated from the sludge incinerator is often used as a raw material for cement. But in this project, the operator build a facility to produce fuel products from sludge, which has few cases in the past. The method of conversion of residue to fuel is not specified at the proposal phase, but is left to the private sector to make an open proposal.
- The low-temperature carbonization method, which can carbonize waste at temperatures between 250 and 350 degrees Celsius, is expected to reduce greenhouse gas emissions by about 43% (about 5,900 tons/year) compared to existing incinerators. The low-temperature carbonization fuel system is a technology that can increase the value of the new fuel as an alternative fuel to the coal normally used in thermal power plants.
- As proposed by the private business operator, the users of the fuel materials are electric power companies that have experience in the use of biomass fuels. Yokohama City was able to secure buyers that can stably receive the final product for a long period of time.





This is a biomass utilization project at the Kurobe Purification Center in Kurobe City that effectively collects and utilizes biogas generated from biomass by mixing and processing sewage sludge, agricultural village drainage sludge, septic tank sludge, disposer-derived garbage, and food residue (coffee grounds). This project aims to reduce processing costs by adopting the PFI method, and also reduces environmental impact by effectively utilizing biomass, which includes coffee lees received from a nearby canned coffee manufacturing plant. The project is the first PFI project for a biomass energy utilization sewage plant in Japan, and the special-purpose company Kurobe E Service, represented by Swing Corporation is in charge of entire aspects of the project from financing to design, construction, maintenance, management, and operation.

# Project Detail

IMPLEMENTING AGENCY :
Kurobe City (Toyama Prefecture)

PRIVATE -SECTOR COMPANIES : Swing Corporation

#### SCOPE OF WORK :

Design, construction, construction supervision, inspection and maintenance of treatment facilities. Acceptance of each sludge and food residue, biomass treatment, and effective utilization of biomass energy.

TYPE OF PPP :	BTO (Service purchase)
CONTRACT DURATION : (Design, Constru	18 years action 3 years, O&M 15 years)
CONSTRUCTION PERIOD :	2009/4 - 2011/4
PROJECT VALUE :	USD \$37.7 million

Note: exchange rate 2009/4/30 97.78 yen/\$



#### **PROJECT SCHEME**



- The biomass utilization facility dries sludge and converts it into fuel by boiler heat generated from biogas (methane gas), not fossil fuel. Excess biogas is used as fuel for a micro gas turbine to generate electricity for the plant.
- An artificial waterfall named "Kirara Waterfall" using recycled sewage water was constructed in the adjacent park, and a footbath using biogas was installed inside the sludge treatment facility, creating a place of relaxation where local residents can enjoy the facility in a friendly manner.

Toyohashi City implements a PFI project (BTO method) at the Toyohashi City Public Sewage Treatment Plant of Nakajima to develop and operate a facility to convert sludge (sewage sludge, human waste, and septic tank sludge) and raw garbage into methane fermentation and use the biogas generated as fuel to generate energy. The project is one of the largest combined biomass treatment systems in Japan, that effectively converts waste into resources by combining biomass, which had been treated in separate processes. Toyohashi Biowill Co., Ltd., an SPC led by JFE Engineering Corporation, will be responsible for the design, construction, maintenance, management and operation of the facility for a period of 20 years.

# Project Detail

IMPLEMENTING AGENCY : Toyohashi City (Aichi Prefecture)

**PRIVATE -SECTOR COMPANIES** : JFE Engineering Corporation, Kajima Corporation, Kajima Environment Engineering Corporation, OTEC

#### SCOPE OF WORK :

Design, construction, maintenance and operation of biomass resource utilization facilities

TYPE OF PPP : BTO (mixed type)

CONTRACT DURATION : 23 years ( Design, Construction 3 years / O&M 20 years)

CONSTRUCTION PERIOD : 2014/12 – 2017/9

PROJECT VALUE : USD \$123 million

Note: exchange rate 2014/12/31 120.55 yen/\$



# **PROJECT SCHEME**



- The amount of biomass received per day is approximately 472 cubic meters of sludge and 59 tons of raw garbage. The amount of electricity generated by biomass power generation using these materials as fuel is 24,000 kWh per day, and the generated electricity is sold to electric power companies under the Feed-in Tariff (FIT) system for renewable energy. Surplus gas is used in the carbonization facilities. In addition, solar power generation using idle land has been carried out as part of the unused land utilization business.
- The residual sludge generated after methane fermentation is also processed into carbonized fuel in the carbonization facilities to make effective use of waste energy. Carbonized fuel is used as fuel for boiler, as an alternative to fossil fuels, which has about half the calorific value of coal.
- Efficient and stable methane fermentation treatment can be achieved by mixing sludge and raw garbage. This project has also led to a reduction in greenhouse gas emissions.

Based on Aichi Prefecture's "Plan for Wide-Area Waste Incineration Treatment", the project involves the development and operation of a resource-recycling type waste treatment facility for melting combustible waste and shredding and melting noncombustible and oversize waste from the cities of Nagoya, Kitanagoya and Toyoyama. The project is being implemented utilizing the PFI method, which entrusts the entire process such as, facility design, construction, operation, maintenance to private partners. The shaft furnace type gasification melting furnace installed for this project, has one of the largest processing capacities in Japan, capable of processing up to 660 tons of combustible waste per day. Kitanagoya Clean System Co. Ltd., an SPC established by group companies represented by Nippon Steel Engineering Co., Ltd. is carrying out the operational management of the project.

# Project Detail

IMPLEMENTING AGENCY : Nagoya City (Aichi Prefecture)

#### PRIVATE -SECTOR COMPANIES :

Nippon Steel Engineering Co., Ltd., Nippon Steel Environmental & Energy Solutions Corporation, Ecomanage Corporation, Kyokuto Kaihatsu Kogyo Co., Ltd., Hirochiku Co., Ltd., Yabashi Industries Co., Ltd., Daiken Sekkei Inc.

#### **SCOPE OF WORK :**

Design, construction, operation and maintenance of the Kitanagoya Plant.

TYPE OF PPP :	BTO (Service purchase)
CONTRACT DURATION :	20 year (Operation Period)
CONSTRUCTION PERIOD :	2016/3 - 2020/6
PROJECT VALUE :	USD \$476 million

Note: exchange rate 2016/3/31 112.68 yen/\$

- Combustible, noncombustible, and oversize waste are melt in the melting furnace at 1,800 degrees Celsius and the extracted material are utilized as resources such as slag and metal, resulting in zero landfill waste. Revenues from the sale of valuable and recyclable materials and electricity sales will be the income by the private sector.
- The heat generated during the processing of waste is used to generate electricity. The generated electricity is used in the plant, and surplus is to be sold. The plant is equipped with a cogeneration generator that can supply both heat and electricity at the same time, ensuring power supply even during power outages. In addition, a solar power generation system has been installed on the roof to generate electricity.
- An appropriate environmental protection measures are in place, using a filtered dust collector to remove harmful materials from the exhaust gas, before discharging it from the chimney. A 5,000 cubic meter rainwater reservoir tank has been installed in case of flooding, and rooms important for factory operation, such as the central control room, electrical equipment room, and generator room are located in a place high enough to avoid damage from flooding.





As part of the Tokyo International Airport re-expansion project to enhance Tokyo's global competitiveness, the project is one of the largest PFI projects in Japan to develop three separate projects in the international flight zone, which enabled efficient and effective facility development by applying a project scheme that matches to the characteristics of each project: (1) International terminal (passenger terminal building, parking lot, etc.), (2) Cargo terminal (cargo shed, track yard, etc.), and (3) Apron (apron, internal roads, etc.).

With the prospect of higher demand for international aviation, by utilizing the expertise and funds of the private sector, improvement of airport facilities and the quality service to airport users are being achieved while reducing the government expenditure as much as possible.

# Project Detail

IMPLEMENTING AGENCY : Ministry of Land, Infrastructure, Transport and Tourism

#### **PRIVATE -SECTOR COMPANIES :**

①Passenger Terminal : Japan Airport Terminal Co., Ltd., etc②Cargo Terminal :Mitsui & Co., Ltd., etc.③Apron Zone :Taisei Corporation, etc.

#### SCOPE OF WORK :

①Development and operation of the passenger terminal building, parking lot, etc.

- (2) Development and operation of the cargo shed, etc.
- (3) Development and maintenance of the apron, internal roads, etc.

#### TYPE OF PPP :

(1)(2)BOO (Self-supporting accounting)(3)BTO (Service purchase)

CONTRACT DURATION : 123 30 years

#### **CONSTRUCTION PERIOD**:

①Passenger Terminals	2008/5 - 2010/7
<sup>(2)</sup> Cargo Terminals	2009/3 - 2010/7
③Apron Zone	2006/4 - 2009/9

#### PROJECT VALUE :

12	- (Self-supporting accounting)
3	USD \$460 million

Note: exchange rate 2017/12/31 113 yen/\$

# Key Features

Development and operation of the passenger and cargo terminals, which are expected to be profitable, will be carried out by Self-supporting accounting, with the SPC recovering the cost of facility development through passenger service facility charge, tenant fees and other revenues, without using government funds. As for the apron development, the project will be implemented as a service purchase type, in which private sectors will develop facilities with funds raised by itself and the government will pay for the facilities in installments.

The contractor will be selected by the SPC through an open competitive bidding process. By separating the procedures for selecting the terminal operator and construction contractor, terminal construction cost is expected to be reduced by creating a competitive environment.





This is the first case in Japan where the concession system has been adopted for an airport facility owned by the national government. In the past, Sendai Airport was operated by different entities, with the terminal building operated by the third sector, which is funded by Miyagi Prefecture and private companies, and the runway operated by the national government, making it difficult to operate the airport as a whole in an agile manner. Introduction of the concession system in this project has not only reduced costs and improved efficiency by integrating the previously separated management of runways and airport buildings, but has also created business opportunities to generate revenue. Sendai International Airport Co. Ltd., an SPC established by the Tokyu Group, Maeda Corporation, and Toyota Tsusho Corporation, is responsible for the operation of the airport for 30 years, and the project is expected not only to revitalize the Tohoku region but also to drive full-scale recovery from the Great East Japan Earthquake.

# Project Detail

IMPLEMENTING AGENCY :

Ministry of Land, Infrastructure, Transport and Tourism

#### **PRIVATE -SECTOR COMPANIES :**

Tokyu Corporation, Maeda Corporation, Tokyu Land Corporation, Toyota Tsusho Corporation, Tokyu Agency, Tokyu Construction, Tokyu Community Corporation

SCOPE OF WORK :
(1)Airport Operation, etc.
(2)Operation of airport aviation security facilities, etc.
(3)Environmental measures
(4)Other incidental businesses
(5)Building facilities, etc.

TYPE OF PPP :	Concession
CONTRACT DURATION :	30 years (Start of Operation 2016/7)
CONSTRUCTION PERIOD	: –
PROJECT VALUE : USD	\$18.2 million

(concession fee (excluding tax)) Note: exchange rate 2015/12/31 120.61 yen/\$



#### **PROJECT SCHEME**



- Landing fees, parking fees, and facility usage fees from air transport operators and building facility tenants are collected by the Operator. The project is implemented as a self-supporting accounting basis in which the operator bears all the costs required for the implementation of the project during the contract period.
- In addition to the operation of runways and other facilities under the public facility management right (concession), the management right holder purchases the portion of the shares of the passenger building facility operators and cargo facility operators, allowing for more efficient and integrated airport operation.

This project is being implemented jointly by the national government (Ministry of Land, Infrastructure, Transport and Tourism) and Katori City, and is the first case in Japan where the PFI method has been applied for a river sector project under the direct control of the national government. А unique feature of this project is the combined use of conventional and PFI methods in public procurement, with conventional method being used for basic infrastructure construction including high-standard levees, river disaster prevention stations, and expansion of national roads, while river stations (facilities for disseminating information on river use, etc.), roadside stations (facilities for regional exchange), and river environment facilities (Sawara riverbank) were integrated as a PFI project under a joint order between the national government and the city. Efficient and effective facility development and operation is being carried out by implementing a PFI project in the areas where the knowledge of the private sector can be utilized.

#### Project Detail

#### **IMPLEMENTING AGENCY:**

Ministry of Land, Infrastructure, Transport and Tourism and Katori City (Chiba Prefecture)

#### **PRIVATE -SECTOR COMPANIES :**

Toyo Construction Co., Ltd., Maeda Corporation, Tokiwakougyou Co., Ltd., Tokensya Co., Ltd., Five , Menya -Momotaro

#### **SCOPE OF WORK :**

(PFI portion) Design, Construction, O&M of facilities (Ancillary portion) Operation of Retail, Food Court, Riverside Marina, Pleasure Boat, Canoes etc.

TYPE OF PPP : BTO (Service Purchase)

CONTRACT DURATION : 17 years (Design, Construction 1 years 8 month, O&M 15 years )

CONSTRUCTION PERIOD: 2008/7 – 2010/2

PROJECT VALUE : USD \$21.7 million

Note: exchange rate 2008/7/30 108.12 yen/\$





**PROJECT SCHEME** 



- When introducing the PFI method into the joint project involving the national government and the city, due to its differences in applicable laws and regulations, it was necessary to execute two contracts: a PFI project contract and a business consignment contract. First, the city consigns the design and construction work for the city's facilities to the national government, and then the national government enters into a contract with the PFI operator (PFI Sawara River Co., Ltd.) for the design, construction, maintenance, and operation of the national government's facilities, together with the consigned city facilities work. After that, the city enters into a contract with the PFI operator for the maintenance and operation for the city's facilities. Furthermore, a Memorandum of Understanding (MOU) was signed between the three parties to mutually guarantee the contract.
- In addition to its primary function as a disaster prevention base at times of disaster, the riverside station is effectively used as a disaster prevention education exhibition room and multipurpose training center on normal days.

The medical facility, consisting of two hospitals, the Tokyo Metropolitan Tama General Medical Center and the Tokyo Metropolitan Children's General Medical Center, is one of the largest hospital PFI projects in Japan, reorganizing four metropolitan hospitals into two medical centers and integrating them into one building. (Total: 1,350 beds) A PFI operator selected through open bidding with comprehensive evaluation method is entrusted with comprehensive medical-related operations for 15 years after construction. The Tokyo Metropolitan Government is responsible for the services that are directly related to healthcare, while the SPC "Tama Medical PFI Corporation", is responsible for most of the other services associated with hospital operation including facility maintenance and management, security, reception, meal service, and specimen testing.

# Project Detail

IMPLEMENTING AGENCY : Tokyo Metropolitan Government

PRIVATE -SECTOR COMPANIES : Shimizu Corporation, Panasonic Corporation

#### SCOPE OF WORK :

- 1. Design, construction and operation
- 2. Maintenance and management of building facilities including security
- 3. Medical-related services such as medical clerical work, laundry, food service, and cleaning
- 4. Procurement of medical equipment and drugs, etc.
- 5. Supervision of various outsourced operations, management support and other operations

TYPE OF PPP :	BTO (Service purchase)	
CONTRACT DURATION :	15 years (Period of O&M)	
COSTRUCTION PERIOD :	2007/7 - 2009/9	
PROVECT VALUE :	USD \$2,204 million (Contract Value)	

Note: exchange rate 2017/12/31 113 yen/\$

# Key Features

- In addition to "development of facilities" such as design, supervision and construction, the PFI operator is expected to play a role not only in overseeing outsourced operations but also in supporting overall hospital management, including "operational work" (medical equipment management, medical administration, and security), "procurement work" (medical equipment and medicine), and "operation of convenience facilities" (stores and restaurants).
- A call center, "Service Desk" has been set up for hospital employees to contact for inquiries and to inform problems as a mechanism to receive the feedback from the frontline to improve the operations and the quality of services provided by the partner companies. The system is being used for continuous business process re-engineering (BPR), to prevent recurrence of problems.





# Takeshiba District Urban Renewal Step-up Project Minato-ku. Tokvo

**URBAN DEVELOPMENT** 

# Project Overview

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This project consists of the mixed-used development of a new industrial trade center, a business office building, and a rental housing complex on approximately 1.5 hectare of leased land owned by the Tokyo Metropolitan Government in the Takeshiba district. The project will be carried out in accordance with the development policy for specific projects in the "National Strategic Special Zone", aiming to create a business hub that will contribute to strengthening global competitiveness, promote a smart city with disaster prevention capabilities, and develop facilities to create an attractive urban environment. This project is part of the Metropolitan Government's "Urban Renewal Stepup Project," which takes the opportunity of the relocation of metropolitan facilities to develop the urban and the surrounding areas, by utilizing private sector funds and know-how.

# Project Detail

**IMPLEMENTING AGENCY:** Tokyo Metropolitan Government

**PRIVATE -SECTOR COMPANIES** : Tokyu Land Corporation, Kajima Corporation

#### SCOPE OF WORK :

Utilization of the Metropolitan Government-owned land (1.5 ha) (1) former site of the National Archives (3.461m2) (2) former site of the Tokyo Metrological Inspection Institute (6.166m2)(3) former site of Tokyo Industrial Trade Hall (5,990m2) **TYPE OF PPP:** Fixed-term Land lease **CONTRACT DURATION :** 70 years

CONSTRUCTION PERIOD: 2016/5 - 2020/6

**PROJECT VALUE** : monthly rent (1)USD \$31/m2 (2)USD \$38/m2 (3)USD \$40 /m2

Note : exchange rate (1)(2) 2015/7/31 124.04 yen/\$ (3) 2017/2/28 112.56 yen/\$

# Key Features

- The project has been approved by the Prime Minister, as a special project under the "National Strategic Special Zones", allowing for a floor-area ratio relaxation of approximately 1,100% for the entire site from the designated 400%.
- The building is designed to be resistant to earthquakes and other types of disasters, with the aim of town development fully equipped with disaster preparedness and energy management. The building also functions as a disaster prevention center for the Takeshiba district, with office lobbies and other common spaces on the lower floors as temporary accommodation for people who have difficulties in returning home. In addition, an energy plant has been installed to support the business continuity of the tenants in the event of an earthquake or other disaster.

Established in 2017, Takeshiba Area Management General Incorporated Association was designated as an urban revitalization promotion corporation by Minato ward, Tokyo in November 2018, and has been engaged in an area management activities strive to create new liveliness and to form local community, by "fostering local communities," "promoting environmental beautification and conservation," "promoting safety improvements" among others. A pedestrian network directly connected to Hamamatsucho Station via a barrier-free deck over the Tokyo Metropolitan Expressway was developed to enhance the convenience of the Takeshiba area, and efforts are also being made to develop a smart city that utilizes cutting-edge technologies throughout the city, including the social implementation of MaaS.

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In the Minato Mirai 21 Central District of Yokohama City, which has been designated as a Global MICE City, a new meeting and event facility, "Pacifico Yokohama North" (PFI project), and hotels (private profit-earning project using public land) will be developed in a unified manner on land adjacent to "Pacifico Yokohama," one of the largest meeting and event facilities in Japan. Yokohama Global MICE Corporation, led by Takenaka Corporation, will design, build and supervise the construction of "Pacifico Yokohama North" (PFI (1)), and will be responsible for its maintenance until 2040, after transferring ownership to the City of Yokohama. The operation of the facility will be carried out under a concession system separate from the facility development from the perspective of integrated operation with the existing facility. (PFI(2))A private profit-earning business carried out at the adjacent public land will be excluded from the PFI project, and the hotel will be developed by a private operator who has acquired the land from the city.

# Project Detail

IMPLEMENTING AGENCY :

Yokohama City (Kanagawa Prefecture)

#### **PRIVATE -SECTOR COMPANIES :**

- PFI (1) Takenaka Corporation, Komatagumi Co., Ltd., Nippon Kanzai Co., Ltd., Mitsubishi HC Capital Inc.
- PFI 2 Pacific Convention Plaza Yokohama

#### SCOPE OF WORK:

- PFI ① General management, design, construction and maintenance
- PFI ② General management, operation and management (Concession)

TYPE OF PPP :

PFI (1) BTO (Service purchase)

PFI (2) Concession

#### CONTRACT DURATION :

PFI(1) 24 years 4 month (Design, Construction 4 years 4 month, Maintenance 20 years)

PFI<sup>2</sup> 23 years (Operation)

CONSTRUCTION PERIOD : PFI 1 2017/8 - 2020/3

PROJECT VALUE : PFI ① USD \$313 million PFI ② USD \$66.9 million

Note: exchange rate 2015/12/31 120.61 yen/\$

# Key Features

- With the aim of integrating the operation of the new facility (Pacifico Yokohama North) with the existing facility (Pacifico Yokohama), the operation of the new facility has been separated from the facility development project (design, construction, maintenance and management) and is being carried out under the concession system, in which public facility operation rights are granted. The Pacific Convention Plaza Yokohama, which owns and operates the existing Pacifico Yokohama, is responsible for the integrated operation of the existing facilities as the operation rights holder.
- Private profit generating businesses carried out on adjacent land are excluded from the scope of this PFI project. The hotel business, which is expected to have synergistic effects with the meeting and event facility, is being developed by Resort Trust Co., Ltd. based on a land purchase agreement signed between Yokohama City and the company.





In the Kasumigaseki district, where Japan's central government ministries and agencies are located, this is a multi-development project that integrates an urban redevelopment project and a PFI project which was decided upon as an urban renewal project to rebuild the Central Government Building due to the aging and smaller office space of the old buildings. The twin towers, one dedicated to the government and the other shared with the private sector, were planned for effective and advanced use of government-owned land. The private sector's profit-earning facilities, developed as an ancillary project to this project, is implemented as a self-supporting business basis for about 30 years after the project contract is signed, and part of the profit will be returned to the government as a rent for the government-owned land. The new Central Government building was constructed under the BTO method with a contract duration of about 19 years, and the construction cost will be paid in installments over a period of about 15 years for operation and maintenance, so as to even out the financial expenditure of the government.

# **Project Detail**

#### **IMPLEMENTING AGENCY:**

Ministry of Land, Infrastructure, Transport and Tourism Ministry of Education, Culture, Sports, Science and Technology

#### **PRIVATE -SECTOR COMPANIES :**

Nippon Steel Engineering Co., Ltd, Mitsubishi Corporation, Mitsubishi Heavy Industries Machinery Systems, Ltd. Toyota Tsusho Corporation, Kume Sekkei Co., Ltd. Taisei Corporation, Harima B. Stem Corporation, Tokyo Tatemono Co., Ltd., Nippon Densetsu Kogyo Co.,Ltd., Nippon Steel Kowa Real Estate Co.,Ltd., Kokyo Tatemono Co.,Ltd., Chuo-Nittochi Co., Ltd., Toenec Corporation, Dai-Dan Co., Ltd. Saikyu Kogyo Co.,Ltd., Net One Systems Co., Ltd.

#### SCOPE OF WORK :

Design, Supervision, Construction, Operation & Maintenance for the Central Government Building No.7 and ancillary facilities

TYPE OF PPP :	BTO
CONTRACT DURATION : Central Government Building Ancillary Project	19 years (from 2003) 30 years (from 2003)
CONSTRUCTION PERIOD :	2005/1 - 2007/9
PROJECT VALUE :	USD \$769 million

Note: exchange rate 2003/6 119.80 yen/\$

# Key Features

- In this project, the floor-area ratio was greatly relaxed by changing the zone to a "redevelopment promotion districts", abolishing the existing "specific blocks" in the city planning. Additionally, the economies of scale as a large-scale building were further created by developing the building together with private facilities by the urban redevelopment project.
- In the planning area, there were buildings that are valuable as historical cultural heritage, including the former Ministry of Education, Culture, Sports, Science and Technology building (completed in 1933) and the remains of the stone walls of the outer moat of Edo Castle (built in 1636). The preservation and utilization of these buildings were appropriately carried out by incorporating the methods proposed by SPC.







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The project is reconstruction of prefectural housing in Senri New Town, which had become aged and significantly less earthquake-resistant, including utilization of surplus land created by the projects. The PFI method was adopted as a means to properly rebuild the large number of prefectural housing built during the rapid economic growth period, even under the severe financial and manpower shortage conditions. After demolishing the existing housing, the 2.85 hectares of land was divided into prefectural housing land and land for utilization (surplus land). 280 units of prefectural housing were constructed in the construction area One (1), 170 units in the construction area Two (2), and 158 units of private housing and other facilities were constructed on the land for utilization as an ancillary project.

# Project Detail

#### IMPLEMENTING AGENCY : Osaka Prefecture

PRIVATE -SECTOR COMPANIES : Haseko Corporation, JR West Real Estate & Development Company, Hirofumi-Tanaka Architect & Associates, Mori-Gumi Co., Ltd.

#### SCOPE OF WORK :

Reconstruction of prefectural housing (Demolition, Design, Construction), Resident relocation support and utilization of municipal own land (ancillary project)

TYPE OF PPP :	BT
CONTRACT DURATION : (Dem	6 years nolition, Design, Construction)
CONSTRUCTION PERIOD	2009/3 - 2014/12
PROJECT VALUE : Prefectural Housing : Land sales :	USD \$64.1 million USD \$17.3 million

Note: exchange rate 2009/3/31 98.23 yen/\$



#### **PROJECT SCHEME**



# Key Features

In implementing this project, the surplus land generated after the reconstruction of the prefectural housing was sold to the PFI operator, and the profit from this sale was used to cover the project cost, which helped to reduce the financial burden on the prefecture. On the sold land, the PFI operator developed apartment buildings for families, providing a safe and comfortable living space for multi generation people.

As there are a large number of prefectural housing complexes throughout the prefecture, it would be more efficient to set up a system (Designated Manager System) that can comprehensively maintain and manage multiple facilities rather than ordering maintenance and management work for each individual PFI projects. For this reason, the BT method was selected, which does not include maintenance, management and operations in the scope of work of the PFI operator.

The Nam Ngiep 1 hydropower plant is located on the Nam Ngiep River, a tributary of the Mekong River that runs along the border between Laos and Thailand. It is a large-scale dam type hydropower plant with a maximum output of 290 MW constructed in Laos, which has the abundant hydraulic potential of the Mekong River. Through its 27 years of operation, the plant will export electricity to Thailand and neighboring countries to alleviate the power demand of the entire region, and will also contribute to the stable supply of electricity in Laos by selling electricity to the Électricité du Laos (EDL). The project is operated by Nam Ngiep 1 Power Company Limited, a joint venture established by KPN, a subsidiary of Kansai Electric Power Company (KEPCO), EGATi, a subsidiary of the Electricity Generating Authority of Thailand (EGAT), and the Laos Holding State Enterprise (LHSE).

# Project Detail

#### **IMPLEMENTING AGENCY:**

Ministry of Planning and Investment, Government of Laos

#### **PRIVATE-SECTOR COMPANIES :**

Kansai Electric Power Company (KPN), EGAT International, Laos Holdings State Enterprise

#### SCOPE OF WORK :

Design, Construction, O&M of Concrete gravity dam and power plant

TYPE OF PPP :	ВОТ
CONTRACT DURATION :	27 years (from 2019)
CONSTRUCTION PERIOD:	2014/10-2019/9
PROJECT VALUE :	USD \$982 million





#### **PROJECT SCHEME**



- A Japanese electric power company with extensive experience in the development and operation of hydroelectric power generation is consistently participating in the project. Japanese products, experiences, and finance are utilized for the installation of generators, water pipes, civil engineering work, etc., providing high-quality power plant operations that enable a stable supply of electricity over the long term under an all-Japan approach.
- The company employed about 1,000 local workers during the construction and provides long-term training for local staff in power plant operation, contributing to job creation and human resource development in Laos.
- The Japan Bank for International Cooperation (JBIC) provided Co-financing for this project with domestic and foreign financial institutions including the Asian Development Bank (total amount of Co-financing: US\$643 million).

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TEPCO Renewable Power, Incorporated acquired 31.4% of the shares of JSC Dariali Energy, a hydroelectric power generation company established in 2011, from Peri LLC of Georgia, to participate in the operation of the Dariali hydroelectric power plant (total output: 108MW). The Dariali hydroelectric power plant is located in Kazbegi Municipality, Georgia, and has been in stable operation since it started commercial operation in December 2016 under a power purchase agreement with Electricity System Commercial Operator (ESCO), the market operator in Georgia's electricity sector. The Dariali hydropower plant generates about 4% of Georgia's annual electricity consumption, and is regarded as an important renewable energy source in Georgia.

# Project Detail

IMPLEMENTING AGENCY : Government of Georgia Electricity System Commercial Operator (ESCO)

PRIVATE-SECTOR COMPANIES : Energia, TEPCO Renewable Power Singapore, Lok W. Home

Irrevocable Trust

SCOPE OF WORK : Participation in the development, construction, operation and maintenance of hydroelectric power.

TYPE OF PPP :

P: BOO

**CONTRACT DURATION**: 15 years (from 2016) Operation to be continued after the expiration of the contract period

CONSTRUCTION PERIOD: 2012/12 -2016/12

**PROJECT VALUE :** 

USD \$124.5 million



**PROJECT SCHEME** 



- Through the dispatch of executives and staff from TEPCO Renewable Power, the company introduces Operation and Maintenance expertise that has been cultivated over many years in the Japanese hydropower business, and works to improve its operational capacity, including optimization of O&M activities.
- Nippon Export and Investment Insurance (NEXI) has underwritten the overseas investment insurance for the portion of the investment made by TEPCO Renewable Power, Incorporated. The project is the first underwritten project by NEXI since the signing of the Memorandum of Understanding (MOU) in March 2019, between NEXI and the Ministry of Economy and Sustainable Development of Georgia, which aims to promote trade between the two countries.

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The project is being executed by a joint venture between a Japanese and an Indian company to build, own and operate a 718 megawatt (MW) liquefied natural gas combined cycle power generation plant in the Meghnahat area, located about 40 kilometers southeast of Dhaka, the capital of the People's Republic of Bangladesh. JERA Co., Inc., which is engaged in thermal power generation and renewable energy projects in Japan and overseas, acquired a 49% stake in the project from Reliance Power Limited, a major power generation and coal resource company in India, and will conduct the project through the operating company, Reliance Bangladesh LNG & Power Limited. The electricity generated by the project will be sold under a long-term power purchase agreement with the Bangladesh Power Development Board for a period of 22 years (with a government guarantee) starting from 2023.

# Project Detail

IMPLEMENTING AGENCY : Bangladesh Power Development Board (BPDP)

**PRIVATE-SECTOR COMPANIES** : Reliance Power Limited, JERA Co., Inc.

SCOPE OF WORK : Design, Construction, Operation and Maintenance of natural gas combined-cycle power generation plant

 TYPE OF PPP :
 BOO

 CONTRACT DURATION :
 22 years (from start of Operation)

 CONSTRUCTION PERIOD:

PROJECT VALUE :



**PROJECT SCHEME** 



- JERA Co., Inc., which is engaged in thermal power generation and renewable energy projects in Japan and overseas, will contribute to the economic development of Bangladesh by providing stable and efficient power generation, utilizing its extensive experience in operating power plants around the world.
- The project finance for this project is co-financed with domestic and foreign financial institutions including Japan Bank for International Cooperation (JBIC) and Asian Development Bank (ADB) with a total amount of US\$642 million. Nippon Export and Investment Insurance (NEXI) has underwritten loan insurance and overseas investment insurance (for the loans provided by private financial institutions) for the power plant construction and operation.

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Dubai Waste Management Company P.S.C. (DWMC), a special purpose company (SPC) established by International consortium, will build, own, and operate one of the world's largest waste treatment and power generation plants using stoker incinerators in the Warsan district of the Emirate of Dubai under a 35-year concession agreement with Dubai Municipality.

(Annual waste treatment capacity: 1.9 million tons, power generation capacity: 200 MW)

ITOCHU Corporation, which has an equity stake in DWMC, plays a leading role in the project by dispatching personnel to the company and leveraging its extensive experience in the waste incineration and power generation sectors, while Hitachi Zosen Inova AG, which also has an equity stake in DWMC, is taking a central role in the construction contracting and operation and maintenance of the Energy-from-Waste plant.





- The Emirate of Dubai has set policy goals to reduce the amount of waste sent to landfill, promote sustainable and environmentally friendly waste management, and encourage the development of alternative energy sources, with the goal setting to reduce the amount of waste sent to landfill to zero by 2032. Through this project, Dubai will be able to treat the equivalent of 45% of the waste generated in Dubai, which will greatly contribute to global environmental conservation.
- A total of approximately USD \$927 million in project financing has been co-financed between the Dubai Waste Management Company P.S.C., and domestic and foreign financial institutions, including the Japan Bank for International Cooperation (JBIC). In addition, the loans from Japanese financial institutions are insured by Nippon Export and Investment Insurance (NEXI).

Kobelco Eco-Solutions Co., Ltd., in collaboration with a local partner company acquired an exclusive 20-year water supply license from the Ministry of Industry, Science, Technology and Innovation of the Kingdom of Cambodia to supply tap water to approximately 20,000 residents and commercial facilities in the Koh Dach district of Phnom Penh and the Koh Oknha Tei district of Kandal province, Cambodia. In addition to the design, construction, and commissioning of the water supply facilities, the project includes integrated services such as raw water intake, purification into tap water, water distribution to each end user, meter reading, and fee collection. This is the first water supply project to be implemented by a Japanese company in Cambodia, contributing to the realization of the Cambodian government's "National Strategic Development Plan", which aims to increase the coverage of clean water supply by spreading the water supply improvement projects in Cambodia's regional cities.

# Project Detail

#### **IMPLEMENTING AGENCY:**

Ministry of Industry, Science, Technology and Innovation, Kingdom of Cambodia

PRIVATE-SECTOR COMPANIES : Kobelco Eco-Solutions Co., Ltd., SOMA Group.

#### SCOPE OF WORK :

Design, construction, and integrated services (water intake, purification, distribution, meter reading and fee collection.)

TYPE OF PPP :	Exclusive business license

CONTRACT DURATION : 20 years (Start of tap water supply 2019/12)

CONSTRUCTION PERIOD: 2019/3 - 2019/12

#### **PROJECT VALUE** :

Water Tariff: USD 0.49 - 0.61/ Cubic meter

# Key Features

- The automatic siphon filter\* is used as the core technology for water purification treatment, which eliminates the need for operating personnel, cleaning pumps, and electric power, and reduces maintenance costs compared to other types of filtration systems. Kobelco Eco-Solutions Co., Ltd. requested the Kitakyushu Water Supply and Sewerage Bureau, which has an extensive experience in Cambodian water supply, for check and review on the pipeline design.
  - \* Gravity-type rapid filtration system with full-automatic operation that does not require automatic control valves or flow rate adjustment for filtration and backwashing.
- Since the start of water supply in December 2019, water has been supplied to approximately 50% of the target population (approximately 20,000 people) as of October 2021. The water supply rate is generally progressing as planned, contributing to the achievement of SDGs goals through water services.
- Because this project is a comprehensive private sector consignment, the private sector project entity basically bears the risk. A certain amount of risk is covered by Nippon Export and Investment Insurance (NEXI) overseas investment insurance.





Chinggis Khaan International Airport, which was constructed in the suburbs of Ulaanbaatar, the capital of Mongolia, through an ODA loan from the Japanese Government, is a project in which the airport management company, established by a consortium of Japanese companies and a Mongolian state-owned company. responsible for the operation of the airport for 15 years based on a concession agreement with the Mongolian government. This is the first airport project in Mongolia to be outsourced to the private sector, and the first project in which Narita International Airport Corporation (NAA) has participated in the management of an overseas airport with the support from the Ministry of Land, Infrastructure, Transport and Tourism. The Japanese government is providing comprehensive support from the development of facilities, to the design of operational systems, as well as the improvement of operational management capabilities through technical assistance, and is contributing to the further economic development of Mongolia.

# Project Detail

#### **IMPLEMENTING AGENCY:**

(Construction) Ministry of Road and Transport Development (Operation) National Development Agency of Mongolia, Civil Aviation Authority of Mongolia

# PRIVATE-SECTOR COMPANIES : (Operation)

Japan 51% : Mitsubishi Corporation, Narita International Airport Corporation, Japan Airport Terminal Co., Ltd., JALUX Inc. Mongolia 49% : Khushigiin Khundii Airport, State Owned LLC

SCOPE OF WORK : (Operation) Maintenance and management of civil engineering facilities (runway and apron) and operation of passenger terminal.

TYPE OF PPP :	Concession	
CONTRACT DURATION :	15 years ( from 2021 )	
CONSTRUCTION PERIOD:	2013/6 - 2020/4	
PROJECT VALUE · USD \$7	768 million (Total Construction Cost)	

# Key Features

- In response to the Mongolian government's announcement of its intention to privatize the new airport, the prime minister and other cabinet ministers of Japan made top-level sales efforts to encourage the Mongolian government to have Japanese corporate involvement in the airport operation through a concession model. Consistent support is provided by the all-Japan approach, by combining JICA's various cooperation schemes, such as assisting human resource development for the operation and maintenance of the new airport by aviation experts from the Ministry of Land, Infrastructure, Transport and Tourism and private companies.
- With the participation of Japanese airport operators, airport management know-how such as cleanliness and consideration for universal design have been brought in, and technical cooperation in the field of air navigation services has provided safe and efficient air navigation services, leading to high quality airport operations.
- For the construction of the airport, the Special Terms for Economic Partnership (STEP) which is a part of the Japanese ODA loan condition, was applied to contribute to the sustainable economic growth of Mongolia, and to introduce excellent Japanese technology. Participation of Japanese companies in the operation of the airport has also contributed to the improvement of the service quality.





India

# Project Overview

Mitsubishi Corporation, Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development Japan Expressway International Company Limited (JOIN), (JEXWAY), and East Nippon Expressway Company Limited (NEXCO-East) have formed a consortium to jointly acquire approximately 20% of the shares of Cube Highways and Infrastructure Pte. Ltd., an Indian toll road operator, to enter the toll road business in India. The consortium aims to improve India's highways infrastructure to support the continuing growth in passenger and commercial traffic, while at the same time contributing to economic development across India. Cube Highways and Infrastructure Pte. Ltd. was established by the global infrastructure fund, I Squared Capital (ISQ), and the International Finance Corporation (IFC), a member of the World Bank Group. The company currently owns and operates five toll roads (over 400 km) in India.

# Project Detail

**IMPLEMENTING AGENCY**: National Highways Authority of India (NHAI) etc.

#### **PRIVATE-SECTOR COMPANIES :**

Cube Highways and Infrastructure Pte. Ltd

**Investment by Japanese companies:** Mitsubishi Corporation, Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN), Japan Expressway International Company Limited (JEXWAY), East Nippon Expressway Company Limited (NEXCO-East)

#### DESCRIPTION OF TOLL ROADS SPVs :

Juiper Mahua Tollway (JMTL): 109kmMahua Bharatpur Expressway (MBEL): 57kmWestern UP Tollway (WUPTL): 78kmAndhra Pradesh Expressway (APEL): 75kmNarketpally Addanki Medarametala Expressway (NAMEL):203km

#### TYPE OF PPP : BOT

#### CONTRACT PERIOD :

JMTL	: Operating (until 2031)
MBEL	: Operating (until 2031)
WUPTL	: Operating (until 2026)
APEL	: Operating (until 2026)
NAMEL	: Operating (until 2039)



#### **PROJECT SCHEME**



- E-NEXCO INDIA Private Ltd., a local subsidiary of NEXCO-East in India, plans to carry out road surface condition measurement work in collaboration with Cube Highways and Infrastructure Pte. A vehicle that measures road surface conditions on Japanese expressways will be newly manufactured to measure and analyze data on road surface conditions (cracks, rutting, roughness, etc.) to support the advancement and efficiency of road maintenance in India.
- By expanding the high-quality construction work and efficient maintenance and management skills cultivated in Japan, the company aims to contribute to the achievement of the SDGs goal, by reducing traffic congestion (lowering CO2 emissions) and the environmental impact associated with the reduction of construction waste.

Japan Expressway International Company Limited (JEXWAY), and Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN), and West Nippon Expressway Company Limited (NEXCO-West) have acquired an approximate 10% share in PT Margautama Nusantara (MUN), an Indonesian toll road operator, to enter the toll road business in Indonesia. MUN is a holding company that oversees four road operating SPCs, which currently operates a total of 39km of toll roads in Indonesia.

# Project Detail

IMPLEMENTING AGENCY : Badan Pengatur Jalan Tol (BPJT)

**PRIVATE-SECTOR COMPANIES :** 

PT Margautama Nusantara **Investment by Japanese companies :** Japan Expressway International Company Limited (JEXWAY), Japan Overseas Infrastructure Investment Corporation for Transport and Urban Development (JOIN), West Nippon Expressway Company Limited (NEXCO-West)

#### DESCRIPTION OF TOLL ROADS SPCs :

PT Bintaro Serpong Damai (BSD) : 7.25km PT Makassar Metro Network (MMN) : 10.25km PT Jalan Tol Seksi Empat (JTSE) : 11.57km PT Jakarta Lingkar Baratsatu (JLB) : 9.7km

TYPE OF PPP :PPP model

#### CONTRACT PERIOD :

BSD	: Operating (until 2028)
MMN	: Operating (until 2043)
JTSE	: Operating (until 2041)
JLB	: Operating (until 2042)





#### **PROJECT SCHEME**



- NEXCO-West has developed an inspection management tool called "Smart Inspection (SI)" in collaboration with MUN. The tool enables efficient inspections by using smartphones and tablet devices to take photos of damaged areas of structures and traffic accidents, and register them in the inspection management database, for search and management of the past data.
- In MMN's toll road extension project (4.3km), which opened in March 2021, a Quality Control Advisor (QCA) was dispatched from Japan to MUN to propose design and construction methods, and to provide technical guidance and support for quality and safety improvement.
- The transfer of technology to SPCs under the umbrella of the investee companies will help to implement high-quality construction projects and efficient maintenance management, contributing to the achievement of the SDGs goal by reducing traffic congestion (lowering CO2 emissions) and reducing environmental impact through the reduction of construction waste.

To meet the increasing demand for cargo in the Lach Huyen district in the eastern part of Haiphong City, the project involves the construction of a deep-water port capable of receiving largesize container vessels, as well as development of the surrounding basic infrastructure, and the operation of a container terminal. This project is the first PPP project between the Japanese and Vietnamese governments, in which the basic infrastructure of the lower part of the port was developed with Japanese ODA loans, and the upper part of the port was developed and operated by private companies. The basic infrastructure of the port, including dredging of the shipping channel, reclamation of the sea to create a port site, seawalls, breakwaters, sand barriers, a sea bridge to Cat Hai Island, and access roads, was developed by the Vietnamese government supported by Japanese ODA Loans.

The construction of the pier-type quay, the container terminal, the procurement and operation of cargo-handling machinery, and the terminal operation are being carried out by Tan Can Haiphong International Container Terminal Co.,Ltd. (TC-HICT), a joint venture between Japan and Vietnam.



#### IMPLEMENTING AGENCY : Ministry of Transport

**PRIVATE-SECTOR COMPANIES** : (Container Terminal) Saigon Newport Corporation (Vietnam), Mitsui O.S.K. Lines, Ltd., Wan Hai Lines Ltd. (Taiwan), ITOCHU Corporation

**SCOPE OF WORK**: (Container Terminal) Construction of the pier-type quay, the container terminal. Operation of cargo handling machinery, and the terminal.

TYPE	OF	PPP :	PPP model
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CONTRACT DURATION : 50 years (from 2012)

CONSTRUCTION PERIOD: 2013/4 - 2018/5

PROJECT VALUE : USD \$1.3 billion (ODA loan : US\$ 1 billion, Private Sector : US\$ 0.3 billion)

# Key Features

- During the land development work of the terminal, the Cement Deep Mixing (CDM method) was adopted to strengthen the soft ground formed by the accumulation of sediment from nearby rivers and to shorten the construction period. Steel-pipe-sheet-pile well method, which enables safe and rapid construction even on soft ground, was utilized for the construction of the marine bridge, and for the Route dredging work, grab dredgers were used, which enable construction in a narrow space which does not generate turbidity during dredging.
- The development of the new deep-water port has enabled direct calls by long-haul shipping from North America, Europe, and other countries, reducing transshipment costs and shortening lead times, enhancing the competitiveness of the port as a logistics base in the region. In addition, the project has contributed to alleviating traffic congestion and air pollution in the city due to the decentralization of port facilities in the northern region of Vietnam.
- For the Japanese ODA loan portion, The Special Terms for Economic Partnership (STEP) conditions have been adopted which allow the use of Japan's superior technology and know-how. Participation of Japanese companies in the operation of the terminal has also been contributing to the improvement of the service quality.









The Intercity Express Programme (IEP) is a £5.7 billion project undertaken through public-private partnership based scheme by the UK Department for Transport to replace the longstanding rolling stock that has been used for many years on the Great Western Main Line (GWML) and East Coast Main Line (ECML) in the UK. Agility Trains West Limited (ATWL) and Agility Trains East Limited (ATEL), which were jointly established by Hitachi, Ltd. and infrastructure funds, will develop railway depots for the maintenance, procure and then lease the trains and provide maintenance services to railroad operators for a period of 27 years and 6 month.

# Project Detail

**IMPLEMENTING AGENCY** : Department for Transport, United Kingdom

PRIVATE-SECTOR COMPANIES : Apple BidCo 2 Limited, Hitachi Rail Limited, JLIF Holdings (ATW) Limited, Infra Equity UK Holdings (ATW) Limited

SCOPE OF WORK :

Lease the trains and provide maintenance services, developing railway depots for the maintenance.

**TYPE OF PPP** : PPP model (Rolling stock & Maintenance)

**CONTRACT DURATION**: 27 years and 6 month

CONSTRUCTION PERIOD: 2012/7 – 2018/12 (GWML) 2014/4 – 2020/9 (ECML)

**PROJECT VALUE :** 

USD \$ 8.9 billion



**PROJECT SCHEME** 



- The project is contributing to the long-term stable provision of railroad infrastructure services in the UK by replacing aging rolling stock that has been in operation for more than 30 years. The project is also contributing to the creation of jobs in the local community through its new train factory and maintenance facility built in Newton Aycliffe, County Durham, UK.
- In the U.K., the country which has been actively promoting social infrastructure development with PPP scheme, the Japan Bank for International Cooperation (JBIC), private financial institutions, and the European Investment Bank (EIB) has supported the participation of Japanese companies in overseas railroad projects through co-financing in pounds sterling. In addition, Nippon Export and Investment Insurance (NEXI) has provided overseas business loan insurance for a portion of the loans provided by private financial institutions.

Sojitz Corporation and Rönesans Healthcare Investment, a Turkish healthcare company, jointly designed and constructed a large-scale public general hospital with a site area of 760,000 square meters and 2,682 beds in the Ikitelli district of northwestern Istanbul, to maintain and operate the healthcare facility for 25 years. In Turkey, the introduction of a universal health insurance system in 2008 expanded the scope of medical benefits, resulting in a rapid increase in the number of patients and a shortage of hospital beds. To solve these problems, one of the largest general hospitals in Turkey with a general hospital, a cardiovascular diseases hospital, an oncology hospital, a women's hospital, a pediatric hospital, a neurology and orthopedic science hospital, a physical therapy and rehabilitation hospital and a psychiatry hospital has been developed and operated under the PPP system.

# Project Detail

**IMPLEMENTING AGENCY** : Turkish Ministry of Health

PRIVATE-SECTOR COMPANIES :

Rönesans Group, Sojitz Hospital PPP Investment B.V. (Sojitz Corporation)

SCOPE OF WORK :

Design, construction, financing, operation of the hospital and medical related service.

TYPE OF PPP :DBFOMCONTRACT DURATION :25 yearsCONSTRUCTION PERIOD:2017/9 - 2020/5PROJECT VALUE :USD \$1.82 billion

# Key Features

- The joint venture (Istanbul PPP Sağlık Yatırım A.Ş.) provides related services such as equipment procurement, cleaning, diagnostic imaging, etc. and receives an operating fee from the Turkish Ministry of Health. By making use of the know-how on hospital management accumulated in Japan, the joint venture is able to improve the quality and efficiency of medical services. Doctors and medical services are provided by the Turkish Ministry of Health.
- Based on a strong request from the Turkish government, which was faced with a shortage of hospital beds due to the global spread of the COVID-19, the construction was completed ahead of schedule and the hospital was opened in May 2020. By solving the shortage of hospital beds, the project has greatly contributed to improving the healthcare environment in Turkey.
- Financial support has been provided through co-financing with domestic and foreign financial institutions, including the Japan Bank for International Cooperation (JBIC). Nippon Export and Investment Insurance (NEXI) has underwritten investment and loan insurance (totaling approximately 163 billion yen) for a portion of the syndicated loan (approximately 65 billion yen) and for the Sojitz's investment in the project (approximately 33.4 billion yen). In addition, NEXI supports the participation of Japanese companies in overseas business by providing reinsurance for a portion of the Turkish country risk assumed by the Multilateral Investment Guarantee Agency of the World Bank Group for a portion of Sojitz's investments and loans.

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