

## 添付資料

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1. 横浜市とマカッサル市による都市間連携ワークショップ
  - 1.1 横浜市国際局 発表資料

# Yokohama's Sustainable Development Toward Carbon Neutral City

January 20, 2026

International Affairs Bureau, City of  
Yokohama



## Outline of Yokohama City

Location of Yokohama City



■ **Area: Approx. 435 km<sup>2</sup>**

■ **Population: Approx. 3.78 million**  
(Second in Japan after Tokyo's 23 wards)

■ **Number of business establishments: Approx. 120,000**  
(Fourth in Japan)

■ **Number of employees: Approx. 1.48 million**  
(Third in Japan)

■ **Ratio of the day to night population: 92.5%**

**One of the largest cities in Japan**

# Presentation Contents

- 1 Asia Smart City Conference 2025
- 2 Toward Carbon Neutral City

Thank you for participating in Asia Smart City Conference 2025 !

- Opening Session: Promoting Circular Cities
- Courtesy Meeting with Mayor of Yokohama
- Mutual pitches between city and company
- Business Meeting with Yokohama Company
- Closing Session: Promoting Circular Cities



Asia Smart City Conference (ASCC) 2025  
Host: City of Yokohama  
Dates : Nov..25-26, 2025

# Asian Circular Cities Declaration : Calling for Signatories

At the Asia Smart City Conference 2025, a new region-wide framework, the “Asian Circular Cities Declaration” was established.

## Public Request

- Led by Yokohama, major cities in Asia have made a public request to international organizations for the establishment of a framework to promote circular cities within the region.

## Establishment of the ACCD

- ICLEI Japan announced the establishment of the “Asian Circular Cities Declaration (ACCD)” .
- Yokohama City signed the declaration as the first participating city.



Visit ICLEI webpage on “Calling for Signatories: ACCD”

## Six Key Drivers for a Circular Economy

1 Measure Circularity

2 Circulate Food Loss

3 Strengthen Ties  
b/w Manufacturers  
& Recyclers

4 Shift to  
Circular Business

5 Apply Circular  
Design in Buildings

6 Promote  
Civic Involvement

6 Key Drivers

YOKOHAMA CIRCULAR LINK

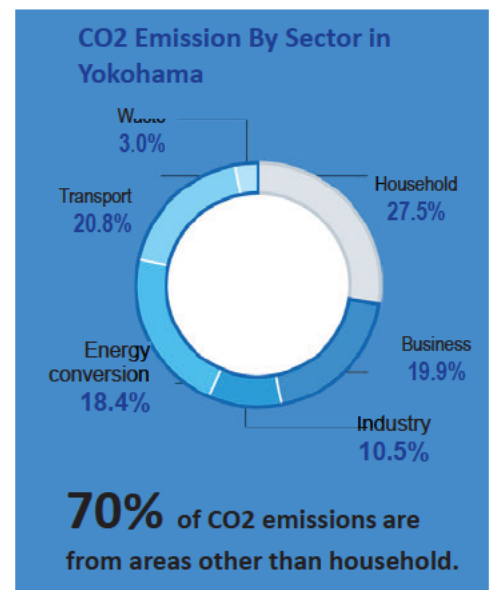
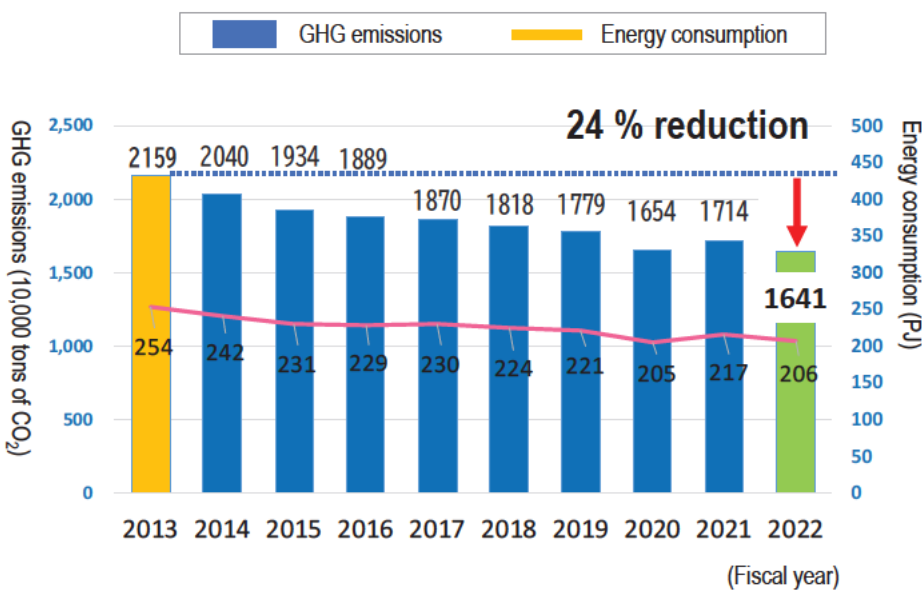
## 2 Toward Carbon Neutral City

### Toward Net-zero Carbon Society

## GHG Emissions in the Yokohama City Area

明日をひらく都市  
OPEN × PIONEER  
YOKOHAMA

- Total GHG emissions in Yokohama in 2022 was 16.41 million tons, 4.3% decrease compared to the previous year and 24% decrease from the base year (2013).



# Model district for carbon neutrality designated by the Government

非公開

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Toward Net-zero Carbon Society

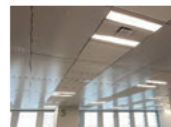
## Model district for carbon neutrality designated by the Government



**Minatomirai 21** is designated as one of the Government's **model districts for carbon neutrality**, the City of Yokohama aims to achieve **net zero CO<sub>2</sub> emissions from its electricity consumption by FY2030** in business and commercial facilities in the district to take initiatives nationwide.

### Energy Saving

- Conversion to LED
- Net zero energy building



### Resource recycling

- Reduction and utilization of food waste and plastic bottles



### Decarbonizing DHC

- Conversion of electricity for heat production into renewable energy

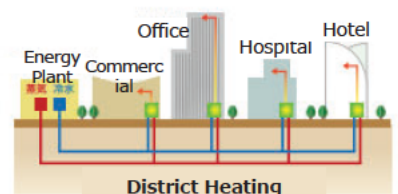
### Renewable Energy

- Utilizing **unused space** in public facilities
- Suppling from **outside of Yokohama**



### Behavioral change

- Organize events **with citizens and businesses**



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# Example of Onsite Renewable Energy introduction



■ Yokohama Baycourt Club Hotel & Spa resort / The Kahala Hotel & Resort Yokohama

Capacity of solar panels : 170kW



■ Yokohama World Porters

Capacity of solar panels : 55kW



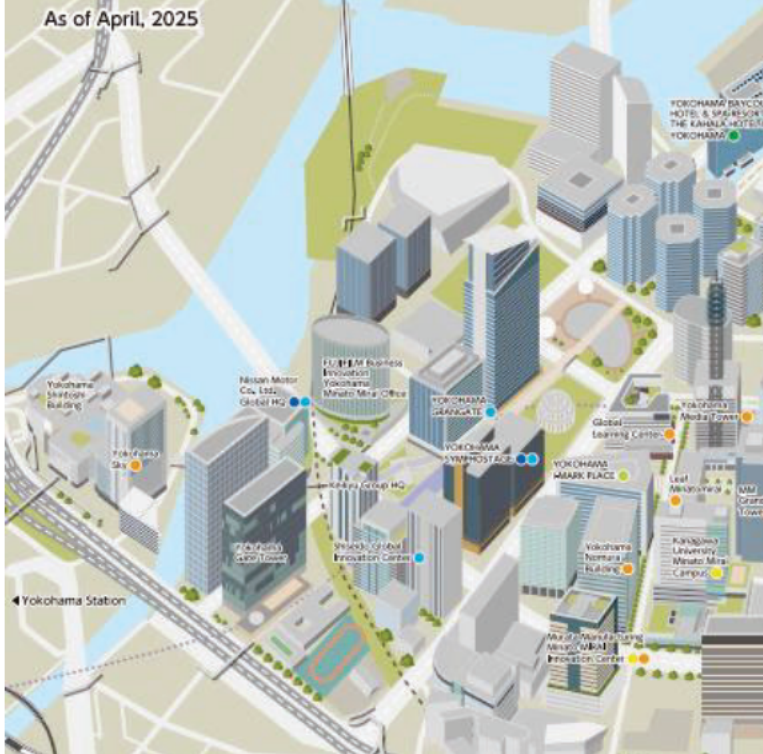
■ MM21 Clean Center

Capacity of solar panels : 54kW

## Toward Circular society

### Minato Mirai 21 - Decarbonizing Leading Area Map

As of April, 2025



**Bottle-to-Bottle Recycling**

A recycling box for separating caps, labels, leftover drinks, cans, and bottles.

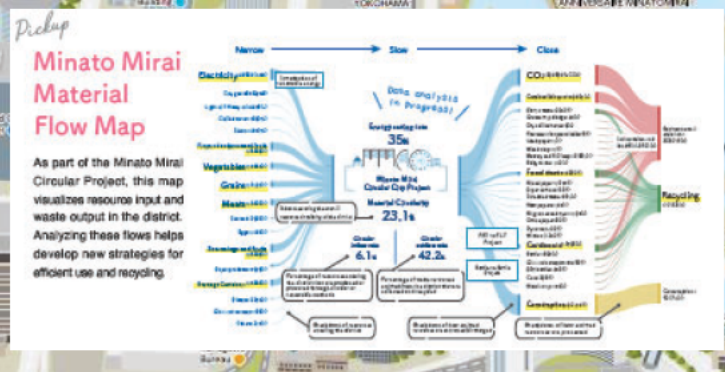
We hope this initiative encourages more interest in resource recycling. Please help by emptying PET bottles and separating caps and labels!

Miho Hayama, General Manager, Planning & Coordination, General Incorporated Association Yokohama Minato Mirai 21

**Promoting Domestic SAF**

Fry to Fly Project symbol

Household used cooking oil collection at a supermarket



**Thank You**



1. 横浜市とマカッサル市による都市間連携ワークショップ
  - 1.2 日本工営（株） 発表資料

**City-to-City Collaboration for Zero Carbon Society Program (C3P)**  
Ministry of the Environment, Government of Japan

**“Zero carbon city project with focus on transportation and energy  
through City-to-City Collaboration  
between Makassar City and City of Yokohama”**

Workshop with Makassar City

日本工営株式会社

20 January 2026

**Outline**

1. Project Overview
2. Project Progress
3. Schedule
4. Others

# 1. Project Overview

- Project Plan
- - Project Implementation Structure

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## Project Plan

This project will promote the formation of Makassar city as a decarbonized city and contribute to the creation of a sustainable urban environment,

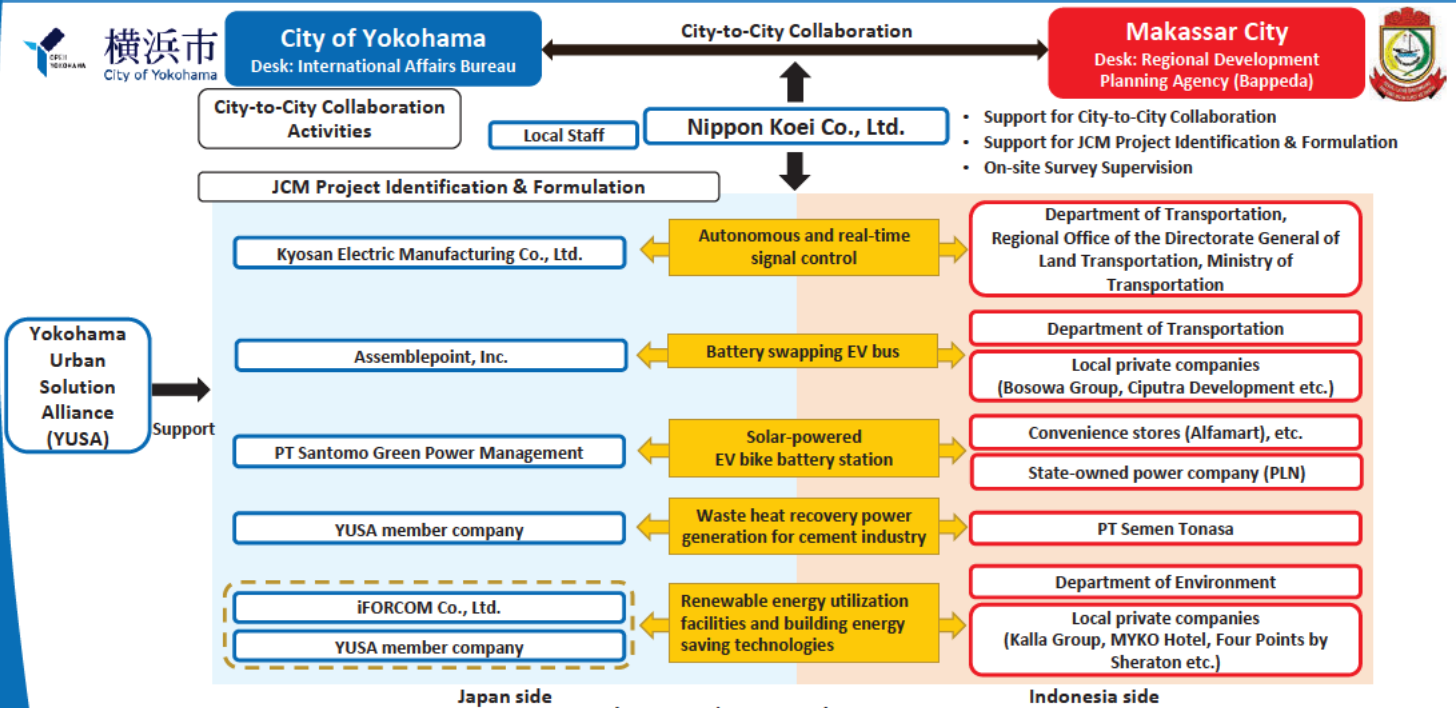
- 1) By combining **the administrative experience of the City of Yokohama**, which has made advanced efforts to decarbonize the city, including in areas where decarbonization has already taken place.
- 2) Specifically, the program aims to introduce technologies and products of companies-related to Yokohama such as the members of Yokohama Urban Solution Alliance (YUSA), of which contribute to **decarbonization in the transportation and energy sectors** in Makassar and the surrounding areas. City of Yokohama may provide specific advice on administrative measures to promote introduction of these technologies and applications more effectively.

# Project Plan (3 Years in Phase 1)

Activity	Field/technology introduced	1 <sup>st</sup> Year (FY2024)	2 <sup>nd</sup> Year (FY2025)	3 <sup>rd</sup> Year (FY2026)
City-to-City Collaboration Activities	Sharing experiences and knowledge of decarbonization by Yokohama city	Introduction of initiatives for decarbonization in the transportation sector	Introduction of decarbonization initiatives based on the needs identified in the 1 <sup>st</sup> year.	-
	Support in the institutional development	-	Support for development a plan of carbon neutral (CN) in the city or priority areas within the city and green building regulation (based on Makassar's interest)	Support for development a plan of carbon neutral (CN) in the city or priority areas within the city etc.
Study for JCM Model Project Identification & Formulation	Decentralized Coordination Signal Control System	Preliminary study, including confirmation of local standard specifications	Discussion on JCM application, Formulation of JCM Model project	Application for JCM Model project (or private JCM)
	Smart Bus (EV Bus) with battery swapping technology	-	Preliminary study for checking potential of introduction of EV Bus	-
	Solar-powered EV bike battery station	Discussion on JCM application, Formulation of JCM Model project	Application for private JCM project	Implementation of JCM Model project (or private JCM)
	Cement waste heat recovery power generation	Preliminary study, including checking the current state of equipment at the local cement plant.	Development of JCM Model project	Application for JCM Model project (or private JCM)
	Renewable energy and energy efficient technologies utilization	Assessment of needs in the local government and private sector	Formulation of JCM Model project on introduction of building energy saving system in private/public buildings (one proposal submitted for demonstration)	Application for JCM Model project (or private JCM)

Important Note: This program is designed for 3 years as one phase (maximum two phases: 6 years), while it needs to be proposed and selected **every financial year** (Apr-Mar). If the progress is not good, it can be terminated in the third year. Achievement of **actual emission reduction activities** is the key.

# Project Implementation Structure



Project Implementation Structure

## 2. Project Progress

- City-to-City Collaboration Activities
- Studies for JCM project identification & Formulation

### City-to-City Collaboration Activities



#### Sharing experiences and knowledge of decarbonization by City of Yokohama

YEAR 1  
(FY2024)

- Introduction of Decarbonization Initiatives in the Transportation Sector

YEAR 2  
(FY2025)

- Introduction to “Decarbonization Leading Areas” and details of initiatives in the region

#### • Introduction to “Decarbonization Leading Areas” and details of initiatives in the region

- Various initiatives in the Minato Mirai 21 district, which has been selected as a decarbonization leading area in City of Yokohama (e.g., decarbonization of mobility within the district, power supply and demand adjustment through EM in cooperation with the entire district), will be introduced through workshops and other activities.



#### Support in the institutional development

YEAR 3  
(FY2026)

- Support for the formulation of CN plans in decarbonization areas  
\*Responding to the interests of Makassar City

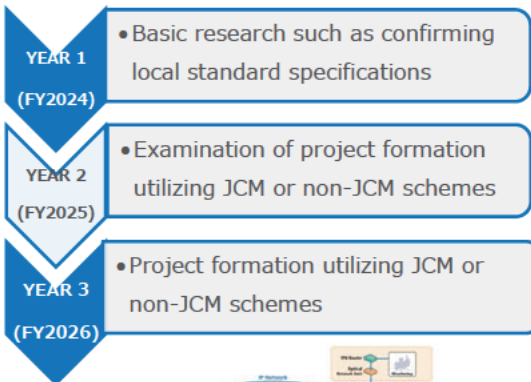
#### Activity Progress

- Activities and cases for the decarbonization in the Minato Mirai 21 district will be shared in the workshop by Yokohama city.
- Increasing open green area idea will be shared by consultants.
- Possibility of future collaboration on realization of decarbonization leading area in Makassar City will be discussed during this trip (especially, with Department of Spatial Planning, Makassar City).



Transportation

➤ Autonomous and real-time signal control



- **Examination of project formation utilizing JCM or non-JCM schemes**
  - Confirmation of details of certification and procurement systems related to traffic signals
  - Discussions with local traffic signal manufacturers, Department of Transportation, and Local office of DGLT, MOT (South Sulawesi)
  - Consideration of the feasibility of utilizing schemes other than JCM etc.

Study Progress

- Regulations related to certification of traffic light in Indonesia issued by MOT (e.g., Permenhub No.49 Tahun 2014 and Perdirjen Hubdat Tahun 2013) were reviewed.
- Meeting with the local office of DGLT, MOT was done last August and meetings with DGLT, MOT in Jakarta and a local traffic signal manufacturer (PT PJI) will be held this month.
- Possibility of utilization of support schemes for project formulation will be considered after the meetings above.

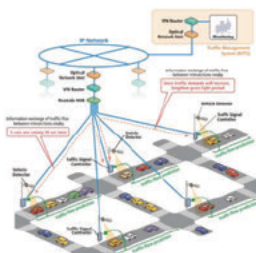
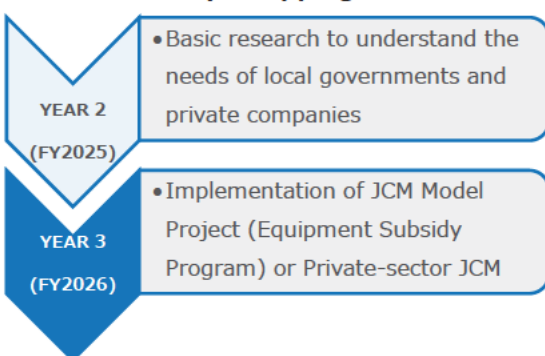


Image of autonomous and real-time signal control



Transportation

➤ Battery swapping EV bus



- **Basic survey to understand the needs of local governments and private companies**
  - Collecting basic information on shared vans in Makassar City (number of vehicles in operation, existing vehicle prices, ownership, actual operation, etc.)
  - Market research in Indonesia (confirmation of competing EV manufacturers and price ranges, business practices, entry barriers, need for localization, etc.)
  - Confirmation of licensing and certification systems related to electric buses etc.

Study Progress

- In August last year, on-site visit was done and discussions on the feasibility of introduction of EV bus with the public institution and private companies were held.
- In December last year, Assemblepoint signed an MOU on collaboration toward introduction of EV buses in Indonesia with the BOSOWA Group, which showed strong interest during the previous discussion.
- Going forward, Assemblepoint and Bosowa Group are planning to conduct a demonstration of EV bus operation at CPI and examine the feasibility of deployment, including potential replacement of the existing vehicles of Pete Pete.



Existing Pete Pete



Assemblepoint's EV bus



Transportation

➤ Battery swapping EV bus



Meeting with Bosowa Group



Meeting with Department of Transportation, Makassar City



Inspection of the bus terminal (Terminal Malengkeri/Terminal Daya)



Meeting with Department of Transportation, South Sulawesi Province



Local office of DGLT, MOT (BPTD) in South Sulawesi



Site visit of the Asemblepoint's EV bus factory in Phillipines by Bosowa Group



Transportation

➤ Solar-powered EV bike battery station



● Preparations for Private Sector JCM applications

- Discussion with the JCM secretariat Indonesia toward the application for Private Sector JCM
- Examination of exiting related methodologies for drafting a new JCM methodology

etc.

Study Progress

- Opinion exchange meeting with Indonesian JCM Secretariat for application of Private JCM project was done during the previous visit.
- Review on existing methodologies was conducted to draft a new JCM methodology.
- Project will be officially proposed to Indonesian Government in January



POC of PV installation for battery station in UNHAS Gowa



Energy

➤ Waste heat recovery power generation for cement industry

- 1st Year (FY2024)
  - Preliminary study, including checking the current state of equipment at the local cement plant.
- 2nd Year (FY2025)
  - Implementation of consultations and business outline proposals related to JCM application
- 3rd Year (FY2026)
  - Implementation of JCM Model Project(Equipment Subsidy Program) or Private-sector JCM

- **Implementation of consultations and business outline proposals related to JCM application**
- Consultation with cement factories and review of business outline plan
- Preparation of basic design and detailed estimates to be implemented in the next fiscal year
- On-site investigation and consultation by YUSA member company

Study Progress

- Since last fiscal year, we have been advancing discussions between a member company of YUSA, and a local company, but currently no progress is being made.
- This fiscal year, we introduced waste heat recovery as a potential activity to another local companies but received responses indicating they already have partners. We will continue exploring potential cooperation by generating additional financial incentives from carbon credit.

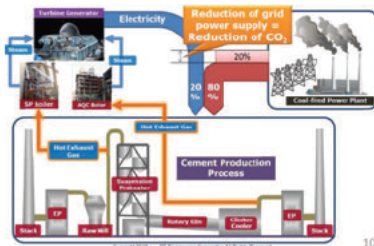


Image of cement waste heat recovery power generation facility



Energy

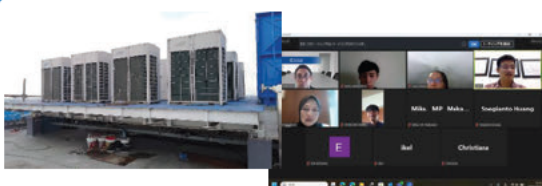
➤ Renewable energy utilization facilities and building energy saving technologies

- 1st Year (FY2024)
  - Assessment of needs in the local government and private sector
- 2nd Year (FY2025)
  - Project formulation of JCM model Project / Private sector JCM
- 3rd Year (FY2026)
  - Application of JCM Model Project or Private-sector JCM

- **Project formulation of JCM model Project / Private sector JCM**
- Detailed consideration for introducing iFORCOM's AI air conditioning control technology
- Confirmation of the needs of introduction of renewable energy and energy efficient technologies into private / public facilities

Study Progress

- Discussions and site visits were held with several buildings including a university, hotels, shopping malls and a factory to assess the potential interest in the technology.
- The result shows the installation of system may be possible for one shopping mall and one hotel. The study result will be explained to the shopping mall management this week.
- From the review so far, the private JCM project will be more appropriate for the shopping mall project.



Online meeting and site visit to the shopping mall

### 3. Schedule

- Project Schedule
- Activities for 2<sup>nd</sup> Trip
- C3P Seminar in Ehime Prefecture

### Project Schedule

Project Schedule (May 2025 - Mar 2026)

Month	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Event			▼	▼			▼		▼	▼	
			Pre Kick-off MTG	Kick-off MTG			ASCC		Workshop	C3P Seminar	
Study	← Study for JCM Project Identification & Formulation →										
Others	▼										▼
	Start of Project										End of Project

< First trip (Aug 2025) >

- Kick-off meeting
- Stakeholder consultation, courtesy call
- Preparation and discussion for on-site Workshop
- On-site survey, information gathering

<Invitation to Japan (Nov 2025)>

- Invitation of Makassar City Government to Asia Smart City Conference (ASCC) in Yokohama (budget for Mayor by this project)
- Discussion between Makassar City and Japan in Yokohama

<Second trip (Jan 2026)>

- Discussions on the project
- Discussions with related parties
- Holding on-site Workshop

<Invitation to Japan (Feb 2026)>

- Invitation of Makassar City Government (budget for one official) to C3P seminar by MOEJ/IGES in Japan (Ehime)

## Activities for 2<sup>nd</sup> Trip

### Contents of the Activities in Makassar

Date	19 Jan (Mon)	20 Jan (Tue)	21 Jan (Wed)	22 Jan (Thu)	23 Jan (Fri)
Activities	<ul style="list-style-type: none"> <li>Courtesy call on the Consular Office of Japan in Makassar</li> <li>Meeting with the JICA Regional Development Policy Advisor for Sulawesi Region</li> <li>Courtesy call on the Mayor of Makassar City</li> </ul>	<ul style="list-style-type: none"> <li>The workshop with Makassar City</li> <li>Joint site visit with Bosowa Corporindo regarding a battery-swapping EV bus project</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with Department of Investment and One-Stop Integrated Service of South Sulawesi Province</li> <li>Meeting with Department of Spatial Planning of Makassar City</li> <li>Meeting with Regional Development Planning, Research and Development Agency of South Sulawesi Province</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with Department of Transportation of Makassar City</li> <li>Meeting with MYKO Hotel and Panakkukang Mall</li> <li>Meeting with Regional Office of the Directorate General of Land Transportation, Ministry of Transportation in South Sulawesi</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with the Faculty of Engineering, Hasanuddin University</li> <li>Meeting with Department of Environmental of Makassar City</li> </ul>

## Activities for 2<sup>nd</sup> Trip

### Contents of the Activities in Jawa

Date	26 Jan (Mon)	27 Jan (Tue)	28 Jan (Wed)
Activities	<ul style="list-style-type: none"> <li>Meeting with PT. Perlengkapan Jalan Indonesia in Magelang (The company has supplied traffic light system to Makassar City)</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with the Joint Crediting Mechanism (JCM) Secretariat in Jakarta</li> </ul>	<ul style="list-style-type: none"> <li>Meeting with the Directorate General of Land Transportation, Ministry of Transportation, Indonesia in Jakarta</li> </ul>

## C3P Seminar in Ehime Prefecture

**Seminar name:** Seminar on City-to-City Collaboration for Zero Carbon Society 2026 (C3P Seminar)

**Organizer:** Ministry of the Environment, Japan (MOEJ) \*Co-organizer: IGES

**Date:** 5 & 6 February 2026

**Venue:** ANA CROWNE PLAZA MATSUYAMA (Ehime Prefecture, Japan)

Date	Time	Program	Note
5 Feb	10:00-12:30	Seminar on City-to-City Collaboration for Zero Carbon Society 2026 - Realizing a Local Decarbonization with Technologies & International Solidarity - (Presentations & Panel discussion)	Language: English-Japanese simultaneous interpretation
	12:30-14:30	Lunch break	Anywhere you like / at your own expense
	14:30-17:00	Mutual learning on local decarbonization initiatives (Workshop)	Language: English
	17:15-19:00	Reception	-
6 Feb	9:00-13:00	Site visit on the local decarbonization initiatives in Ehime Prefecture (Excursion)	Companies and cultural facilities in Ehime will be visited. Further details will be provided in due course.

## 4. Others

- Idea of Project Contents in 3<sup>rd</sup> Year
- Request to Makassar City Government

## Idea of Project Contents in 3<sup>rd</sup> Year

### Proposal of project contents in 3<sup>rd</sup> year (2026-2027)

Item	Field / technology introduced	Contents of activity / study
City-to-City Collaboration Activities	Support in the institutional development	Support for the formulation of CN plans in leading decarbonization areas
Studies for JCM Model Project Identification & Formulation	Autonomous and real-time signal control	Project formulation utilizing JCM or non-JCM schemes
	Smart Bus (EV Bus) with battery swapping technology	Implementation of demonstration project and due diligence for the establishment of Joint Venture company between Assemblepoint and Bosowa Group
	Solar-powered EV bike battery station	Implementation for private JCM
	Cement waste heat recovery power generation	Financial incentive proposal with private JCM scheme
	Renewable energy and energy efficient technologies utilization	Installation of the building energy saving system into a shopping mall and a hotel utilizing B to B or private JCM scheme.

## Request to Makassar City Government

- Cooperation in the meetings with related departments and agencies of Makassar City Government by Study Team (this week).
- Support for the implementation of private decarbonization projects (later on).
- Support for the preparation of the proposal document for the public call by MOEJ on next February (ex. Letter of Interest to be signed by Mayor)



***NIPPON KOEI***

***Terima kasih telah mendengarkan presentasi kami !***