



# JICA DXLab

Information session:  
PoC on the Big Data Analysis on Customer  
Profiling and People Movement in Blok M TOD  
Area with PT Mass Rapid Transit Jakarta

October, 2023

MRTJ, JICA DXLab

# Agenda



Background

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Objective

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Scope of Work

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Deliverables

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Application & admin

# Agenda



Background

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Objective

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Deliverables

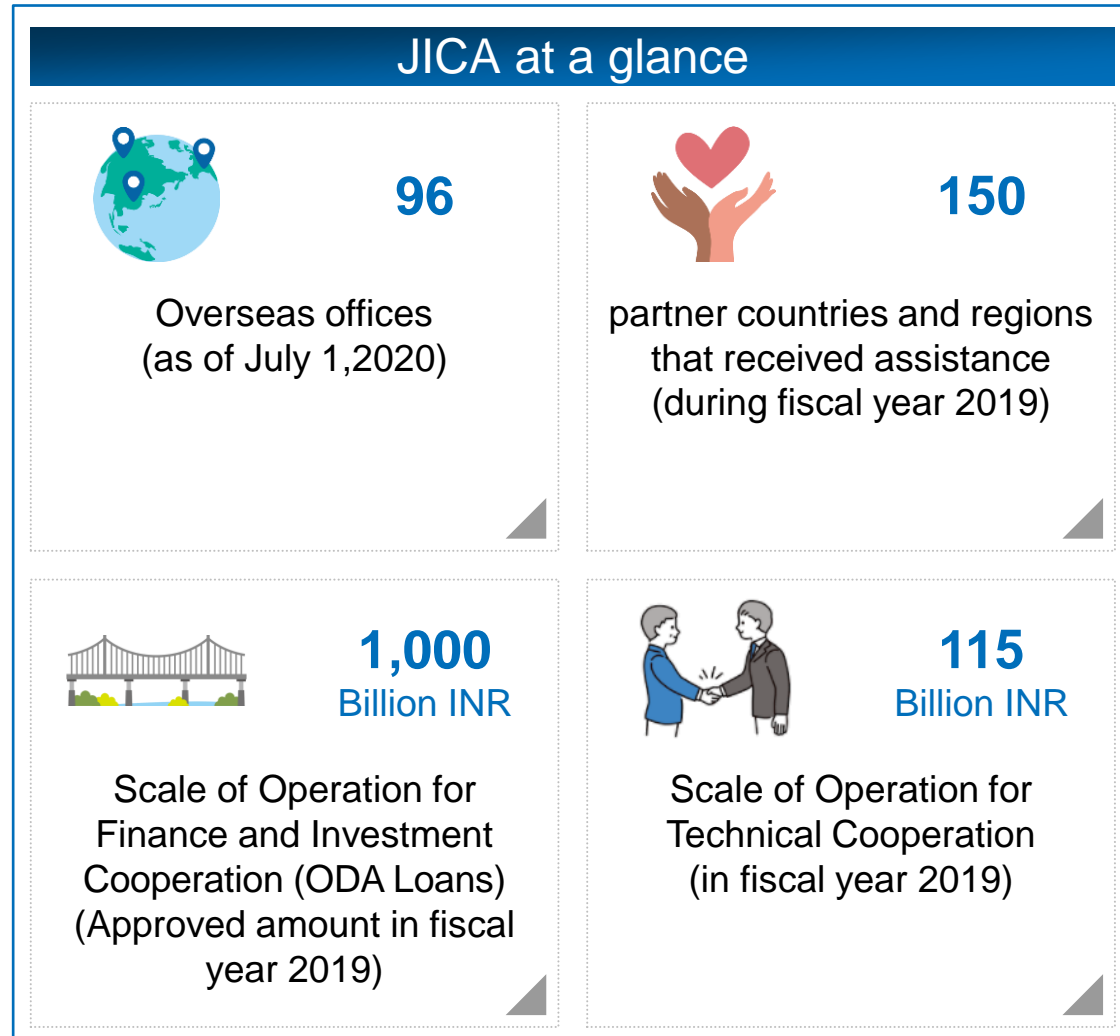
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# About JICA

JICA is a governmental agency of Japan that coordinates official development assistance (ODA)



## JICA's scheme

### Finance and Investment

(ODA Loans and Private-sector Investment Finance)

- JICA provides ODA Loans with concessional conditions (similar to development finance provided by Multilateral Development Banks, etc.) for partner countries to finance investment for development



Delhi Mass Rapid Transport System Project in India

### Technical Cooperation

- By sharing Japan's technologies and expertise, technical cooperation aims to foster the human resources who will lead economic and social development in partner countries



Model Area Traffic Control System in Thailand

### Grant Aid

- Assistance in the form of grants with no repayment obligations to provide the goods and services necessary for economic and social development in partner countries



Fingerprint Identification System in Philippines

# About MRTJ

MRTJ is the Operator of MRT Jakarta Facilities and Infrastructure, MRTJ is also responsible for the development and management of Transit Oriented Areas in designated MRT Jakarta station areas

## Vision

Becoming a leading public transportation provider, committed to promoting economic growth through increased mobility, reduced congestion, and the development of urban transit systems

## Mission

To achieve sustainable excellence in everything we do through:

- Developing and operating a safe, reliable, and comfortable public transportation network
- Revitalizing urban environments through renowned urban transit development
- Building a reputation as the choice by engaging, inspiring, and motivating all employees

## 3 Mandates of MRTJ

As per *DKI Jakarta regulation No.3 2008 regarding the Formation of the Regional-Owned Enterprises (BUMD) PT. MRT Jakarta*

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Infrastructure development

2

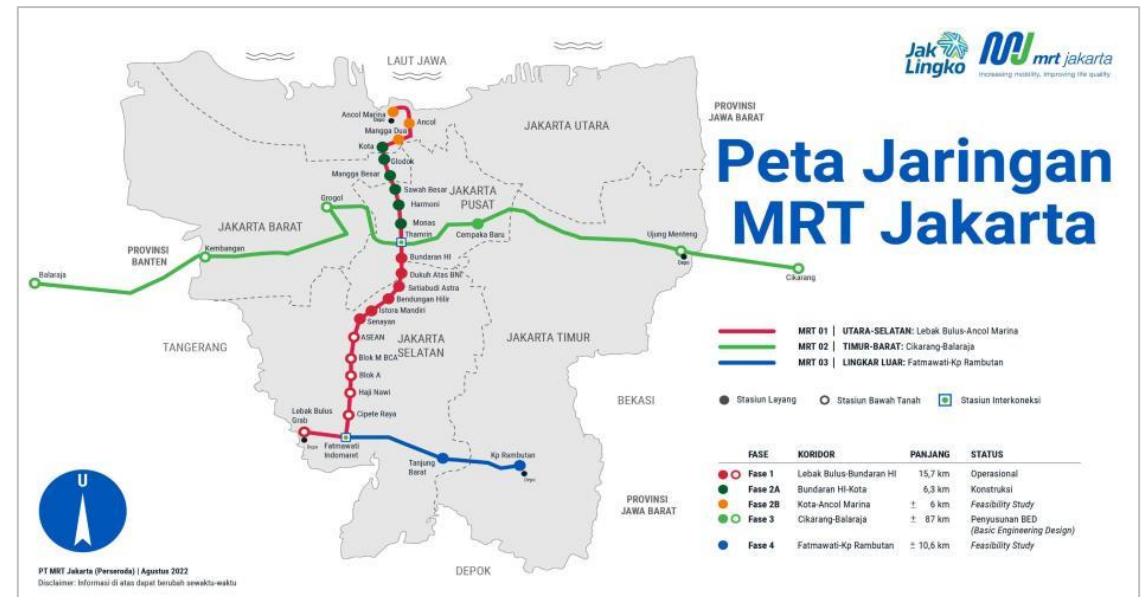
Operations & maintenance

3

Transit-oriented business & areas

## Map of the MRTJ Network as of 2022

- 4 phases planned
  - Phase 1 completed & operational (Lebak bulus–Bunderan HI)
  - Phase 2A in construction (18.1% completion as of Q4 2022)
  - Phase 2B in feasibility study stage
  - Phase 3 in engineering services stage
  - Phase 4 in feasibility study evaluation stage



MRTJ planned & existing network, 2022



# Target location: Blok M



## General Info:

Blok M, located in South Jakarta, Indonesia, is a vibrant and iconic neighborhood known for its diverse businesses, shopping centers, dining establishments, and cultural attractions.

Current Transit-oriented developments ("TOD") projects include the Taman Martha Tiahahu literacy park, which includes a library, reading room, bookstore, coffee shops and others, as well as the redevelopment of Plaza transit Mahakam which aims to optimize road infrastructure and green spaces in Blok M via additional transit areas, parking spaces, commercial places and green areas.

MRTJ sees a strong potential of **transforming the TOD planning and management to more data-driven**, which enhances the attractiveness of the MRTJ network and results in stronger growth of farebox and NFB revenues in the long run



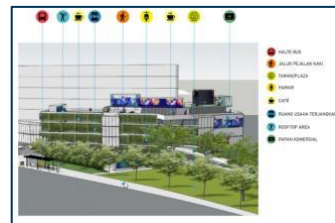
## Existing TOD Projects in Blok M



Taman Martha Tiahahu (literacy park)



Plaza Transit Mahakam current vs. planned



## Planned TOD Projects in Blok M.

(Planned projects are still in discussion and are not final)



- Further development of Plaza Transit Mahakam
- Integration with Transjakarta bus stops
- Blok M Mixed use development
  - transforming unused bus terminal into affordable housing



## Key painpoints

- Limited internal capabilities (data analytics & data collection)
- Lack of data-driven/evidence-based approach on current TOD planning
- Ad-hoc in regards to confronting issues & customer complaints (not data-driven preventive measures)

# Agenda



Background

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Objective

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Scope of Work

---



Deliverables

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Application & admin

# Objectives of the PoC

We would like to generate insights on the following topics in Blok M, covering the MRT Blok M station and its focused TOD areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M through collecting, consolidating, and analyzing data to generate insights for the following perspectives such as:

- Improvement of the MRT Blok M in & around station services
- Improvement of user access to the MRT Blok M station
- Better connections with other means of transportations
- Further commercialization of Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M through development of non-farebox business (events & tenants) strategy in the areas
- Development of data-driven TOD strategy of MRTJ

Therefore, throughout the PoC, we would like to generate customer insights based on collected data in Blok M, covering the MRT Blok M station and its focused TOD areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M such as:

- **Customer demographic and psychological insights** (i.e., gender, age group, affluence, online/offline interests) who use the Blok M MRT station and/or who roam in Blok M areas, especially in MRTJ's focused TOD development areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M including non-MRT users;
- **Their visiting purpose of Blok M areas** (i.e., residents, work, transit users, by-passers) of the customers;
- Also, their **travelling origin & destination information with used means of transportations** to identify if they are MRT users or non-MRT users to visit Blok M and/or MRTJ's focused TOD development areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M, and
- Finally, their **motivational data to use or not to use MRT** to visit Blok M and/or visit or not visit the literacy park, and future activities they would like to see in the areas in order to get more customers attracted to use MRT and to visit MRTJ's focused TOD development areas

We also aim to develop MRTJ's internal data analytics capabilities through this POC by closely collaborating with the digital partner throughout the process including structuring data collection, developing approach for data analysis, generating insights. For this purpose, we prefer to select a digital partner who is willing to closely collaborate with MRTJ team throughout the POC process.



# Agenda



Background



Objective



Scope of Work



Deliverables



Application & admin

## Scope of Work

A proponent may suggest a suitable duration with reasonable justification from early/mid-December 2023 to up to mid-March 2024

- The maximum budget for the services is USD 100,000 including all taxes and expenses, and insurance

The PoC on the big data analysis on customer profiling and people movement in Blok M's Scope of work will include:

- 1 Design data collection/analysis strategy (design phase)
- 2 Implementation of data collection (implementation phase)
- 3 Analysis of the collected data to create insights as results of data analysis (analysis phase)

**Scope of Work may be negotiated after award notice to accommodate the selected solution/proposal**

# Design data collection/analysis strategy

The **design phase** will focus on developing a comprehensive data collection and analysis plan for the PoC by adjusting the proposed plan in Blok M, covering the MRT Blok M station and its focused TOD development areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M. The tasks including:

- A Detailed outline of project activities, including tasks & timelines
- B Develop data collection strategy in terms of defining targeted areas for data collection, defining types and volumes of data to collect:
  - Conduct quick research to understand legal framework on personal information protection in Indonesia to adjust data collection methods
  - If it's necessary, to communicate with other shareholders such as other transport operators to ask their cooperation to collect necessary data
- C Develop data analysis strategy, establishing data analysis logics to get necessary insights on customers in Blok M such as:
  - Customer demographic and psychological insights (i.e., gender, age group, affluence, online/offline interests) who use the Blok M MRT station and/or who roam in Blok M areas, including non-MRT users;
  - Visiting purpose of Blok M areas (i.e., residents, work, transit users, by-passers) of the customers purpose of visit (weekday/repeat/working travelers or weekend/leisure travelers)
  - Travelling origin & destination information with used means of transportations to identify if they are a MRT users or a non-MRT user
  - Motivational data/reasoning of customers to use or not to use MRT to visit Blok M and types of activities customers would like to see in the Blok M station or MRT TOD areas

**This phase should include frequent communications and close collaboration with JICA, MRTJ and Operator to co-develop data collection and analysis plan for the PoC to establish a clearer understanding/alignment on targeted data insights to generate at the end of the PoC**

## Implementation of data collection

The **implementation phase** will focus on collecting customer data in Blok M. This phase needs to consider securing a certain time period to collect sufficient amount of data in a normal occasion (excluding special occasions such as Christmas & new year) and will include the following tasks:

- Collect customer data in Blok M, covering the MRT Blok M station and its focused TOD development areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M to identify key perspectives of Blok M users focusing on:
  - Customer demographic and psychological insights (i.e., gender, age group, affluence, online/offline interests) who use the Blok M MRT station and/or who roam in Blok M areas, especially in MRTJ's focused TOD development areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M, including non-MRT users;
  - Customer's visiting purpose of Blok M areas (i.e., residents, work, transit users, by-passers) of the customers;
  - Customer's travelling origin & destination information with used means of transportations to identify if they are a MRT users or a non-MRT user to visit Blok M and/or MRTJ's focused TOD development areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M, and
  - Motivational data/reasoning of customers to use or not to use MRT to visit Blok M and types of activities customers would like to see in the Blok M station or MRT TOD areas

## Analysis of the collected data to create insights

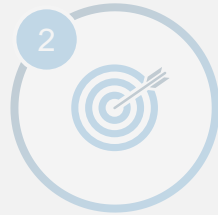
The **analysis phase** will focus on structuring and analyzing the collected data to generate customer insights in Blok M, covering the MRT station and its focused TOD areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M:

- Based on the insights from the collected data, please identify the room for improvement and share its ideas for 2 components in Blok M: a) Blok M station improvement (i.e., in and around station improvement and better access) and b) commercialization of MRTJ's focused TOD areas such as:
  - Area for development to increase the ridership of MRTJ rail services with perspectives:
    - Station service improvement
    - Improvement of station access from other areas
    - Improvement of connections with other transport such as Transjakarta (Buss Rapid Transit) or other ride-hailing and/or ride-sharing services
  - Area for development to increase the number of visitors and the revenue in Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M through non-farebox business development such as tenant or event planning
- **This phase should also include frequent communications and close collaboration with JICA, MRTJ and Operator to co-develop data insights to identify areas for improvement above**

# Agenda



Background



Objective



Scope of Work



**Deliverables**



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# Deliverables digital partner are expected to provide

- 1 Inception report as the deliverables of the design phase**, which is expected to be submitted by the **end of January 2024**, including but not limited to the following contents:

  - A Outline of project activities with detailed tasks and timeline;
  - B Data collection strategy with perspectives of defining types and volumes of data to collect, defined collection tools and methodologies, targeted locations for collection and other required preparation, which must obey Indonesian legal framework for personal information protection;
  - C Data analysis strategy with established logics for some data categories that is not able to collect directly, and
- 2 Processed and sanitized big data collection/list in targeted TOD areas in Blok M as the deliverables of the implementation phase** that becomes dataset for the findings and insights and sanitized not to specify a person. This is expected to be **shared by early March 2024**
- 3 Final report as the deliverables of the analysis phase**, which is expected to be submitted **by mid/end of March 2024**, including but not limited to:

  - Outline of the result of the PoC;
  - Details of the PoC activities;
  - Insights from the collected data;
  - Recommendations of the room for improvement in Blok M and/or potential solutions for 2 components in Blok M: a) Blok M MRT Station improvement (i.e., station improvement and better access) and b) commercialization of MRTJ's focused TOD areas such as Taman Christina Martha Tiahahu (literacy park), Transit Mahakam, and Bus Terminal Blok M, including:
    - Area for development to increase the ridership of MRTJ services with perspectives (e.g., Station service improvement, Improvement of station access from other areas, Improvement of connections with other transport such as Transjakarta or other ride-hailing and/or ride-sharing services)
    - Area for development to increase the number of visitors and the revenue in Taman Martha Tiahahu (Literacy Park) and Transit Mahakam through NFB business development such as tenant or event planning

# Agenda



Background



Objective



Scope of Work



Deliverables

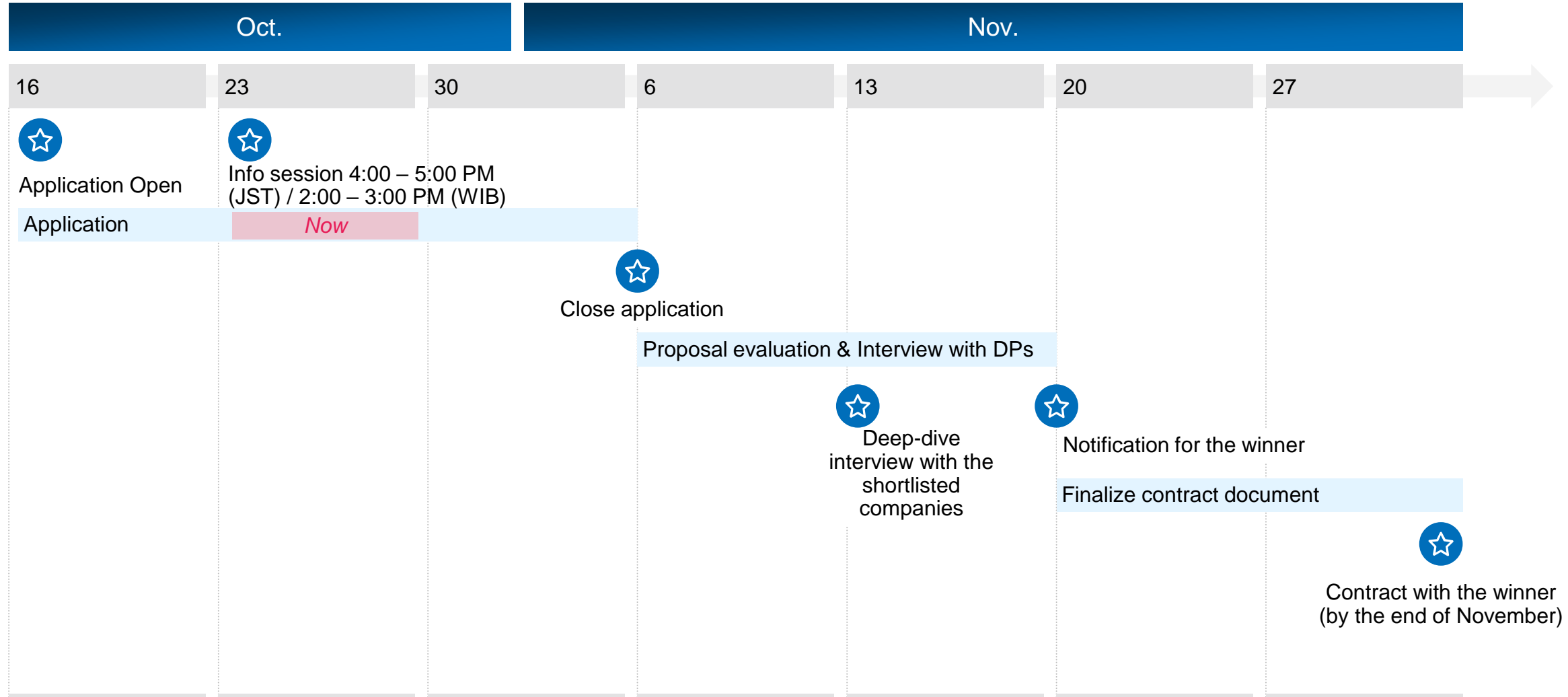


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# Forecast timeline to PoC kick-off and current status overview

Open application on October 16<sup>th</sup>, followed by an information session on October 23<sup>rd</sup>





## Overview of general information form will be available to download via the JICA RfP website

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# Overview of General Information

**4. Data handling statement (Max 500 words)**

- Demonstrate understanding of the sensitivity of handling personal data in Indonesia
- Explain strategies to guarantee the safeguarding of the Indonesian Personal Data

Blok M

**3. Proposal overview**

Proposed duration (Detailed timeline to be elaborated in the proposal)	weeks
Total costs	USD
Short description of project (Data collection and analysis plan and expected outcome/recommendation)	

**Form for the Overview of General Information**

Electronic submission must be received at 11:59 AM on November 3 Japan Standard Time. The email subject needs to be changed to "RFP-MRTJ-PoC", followed by your company name (for instance, RFP-MRTJ-PoC-Name). The submission shall consist of two separate files, Overview of General Information and Proposal Pitch Deck, both in the form of PDF. In order to be considered for funding, submission documents must be prepared in English and fulfil each of the following items.

Fill out this form and include it as a cover page of the Overview of General Information

**1. Contact Information**

Organization name	
Contact person name and title	
Address	
Phone number	
Email address	

**Organization description (Max 150 words)**

ing, as well as

**2. Documentations (a copy to be included in the PDF file)**

Documentations	Check/attached
Company registration certificate or equivalent	
Active business license	
At least 2 years of audited financial statements	
Tax certificate	

### The form will include:

- 1 Contact information
- 2 Documentations
- 3 Proposal overview
- 4 Data handling statement
- 5 Information request to MRTJ

# Proposal Pitch Deck

Proposal Pitch Deck (PDF format) should be presented concisely in this order to include the following information:

## i Organizational capacity

- 1 An overview of relevant experience: Highlight experience in collecting and analyzing big data on customer personal and behavioral segments to develop business and TOD strategy development and/or data on identifying pedestrian circulations including connections with different means of transportation

## ii Technical Proposal

### 1 Solution/technology overview

- A detailed description of the solution's technology, software, and hardware components and how the technologies will be integrated to achieve the project objectives
- A detailed description of types and volumes of big data will be collected/integrated into the PoC solution
- A detailed description of collecting methods in appropriate format to obey legal framework of personal data protection in Indonesian
- Expected insights and recommendations during the PoC to achieve the project objectives
- If available, provide previously achieved outcomes of the same or similar solutions developed

### 2 Implementing team structure and operating model

- A detailed breakdown of roles and responsibilities of the project team, including a project manager, data scientists, and any other relevant personnel.
- The proposal should also describe the qualifications and experience of each team member, highlighting their relevant experience and expertise in involving big data analysis

### 3 A detailed implementation plan, including the timeline for work and the resources required for the project

- Duration in which the team plans to spend on the field should be clearly defined in the timeline
- Project duration that fits the preferred duration will receive higher marks for the timeline consideration. However, we are also open to proposals with longer durations/timeline as long as the proposal includes detailed justifications and the breakdown of timeline

iii Financial Proposal. Provide a detailed breakdown of the costs associated with the project, including personnel, hardware, and implementation resources. Please note insurance fees also need to be included into your financial proposal. For the details on insurance, please see the next chapter

# Quality Based Selection is to be applied to assess technical aspects of the proposed solutions

## Financial evaluations

Please also note any financial proposals that **exceed the ceiling budget will not be qualified for this evaluation**



## Technical evaluations

### Criteria (from RFP)

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Track record of successfully conducting relevant projects in the past on big data analytics that could identify station access development and commercialization

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Technical competence of core team & its flexibility/responsiveness

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Types, volumes and quality of data to be collected / integrated into the solution

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Thoroughness of data handling acknowledgement and strategies with a deep understanding of legal framework on personal data protection in Indonesia

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Relevance of the expected insights for the MRTJ data/DX strategy

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Scalability of the solution from practical and financial standpoints in MRTJ

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Usability (ease of implementation)

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Feasibility of the operating/delivery model (resource allocation/timeline) to complete the work by the deadlines

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Willingness to closely collaborate with MRTJ team throughout the POC process, including co-development of data collection and analysis plan to generate better insights

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## For the shortlisted companies, we will have a deep-dive interview with each on Nov 13th or 14th

- We are going to have a deep-dive interview with the shortlisted companies (~45 mins for each)
- Deep-dive interview will be held on
  - November 13th (between 2-6pm (JST), 12-4pm (WIB)), or
  - November 14th (between 2-4pm (JST), 12-2pm (WIB))
- We will inform you if the company is shortlisted with a zoom link for the interview
  - We will inform you around November 9th or 10th, 2023



Agenda will be:

- Presentation by DP: ~15 min
- Questions from MRTJ/JICA: ~20 min
- Questions from DPs: ~10 min

# Q & A

# Questions from proponents (1/4)

## Questions

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- 1      Need more information regarding the insurance as mentioned in the Budget section

## Prepared answers

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- We strongly recommend partners are expected to get an insurance to cover 1) [Commercial General Liability](#), 2) [\(Partner's\) Workers' Compensation](#), 3) [Employer's Liability](#), 4) [property insurance](#) and some additional insurance such as Business Automobile Liability, Professional Indemnity insurance, Privacy/Network Security (Cyber) insurance if necessary
- [Details of coverage & fees will be negotiated](#) and decided with the selected digital partner
- [If your company have already joined an insurance that can cover most above, it would also be possible to apply to this project](#) after negotiation with the Operator of this project

- 2      Formulation of Joint Venture and associations for Team-up

- [Formation of JV to participate in this project is acceptable](#)
- However, in this case, [please submit the Overview of General Information \(PDF format\) \(Attachment 1 of RfP\) for all companies](#)

- 3      Evaluation with the allocated score for each criteria and score for financial proposals with its evaluation method

- [Quality Based Selection](#)
- Please also note any financial proposals that [exceed the ceiling budget will not be qualified for the technical evaluation](#)
- [Details on the previous page](#)

## Questions from proponents (2/4)

### Questions

4 Eligibility - can the company which does not have Permanent Establishment in Indonesia join the project?

5 Will the Contract will be between JICA and the selected Digital partner?

6 Payment method to proponents

### Prepared answers

- Yes, but the proponent should be capable enough to compete the project in English (Fluency in Bahasa Indonesia is not required but desirable)
- The Operator (BCG) will be the contracting counterparty to Digital Partner. (Please see Section 10 of RfP)
  - The vertical contractual relationship are as follows: JICA (Japan International Cooperation Agency) is contracting Operator for the execution of PoC
  - Proponents should note that their primary contractual relationship will be with Operator with the primary aim of delivering a digital service to MRTJ (MRT Jakarta) for the Proof of Concept ("POC").
- Ideally, the Operator would like to pay 100% after the completion of the project
- However, it's also negotiable to apply payment by installments. In this case, the Operator will pay
  - 30% (USD 30K): After contracting
  - 30%(USD 30K): After completion of the implementation phase (i.e., After the submission of the big data collection/list)
  - 40%(USD40K): After completion of the project (After the submission of the final report)
- In the event of contract duration extension after March 2024, the operator would require a renegotiation of payment schedule with JICA and the operating company of the PoC

## Questions from proponents (3/4)

### Questions

### Prepared answers

7 I would like to know the plan shape and width of the Blok M station concourse.

- We will only be able to provide the information after the proponent is selected as it is not disclosable information

8 Contract duration

- Ideally the project should **end in mid/end of March, 2024**
- It would be possible to suggest the extended timeline but still **need to be implemented within the ceiling budget**
- In the event of **contract duration extension after March 2024**, the operator would require a **renegotiation of payment schedule with JICA and the operating company of the PoC**

9 Available dataset from MRTJ

- **All MRTJ data will be provided with the selected proponent only after contracting and at request-basis**
  - Customer demographic and psychographic data (collected from a sampling survey and data may be outdated)
  - Transactional data (top origin – destination, volume of ridership per day & hour, passenger density per hour, ticketing payment method, top spenders, average ticket size per trip)
  - Urban design guideline from DKI Jakarta government
  - Land ownership status in the TOD area
  - List of interested land owners to collaborate

10 Currency for financial proposals

- Please use **USD**

## Questions from proponents (4/4)

### Questions

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### Prepared answers

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|----|--|--|
| 11 | What exactly does the PoC operating team think as deliverables for the analysis phase? | <ul style="list-style-type: none"><li>• We would like to see what types of deliverables as recommendations for the area for improvement for MRTJ based on insights from the collected data from the proposed idea from digital partners as a part of the evaluation criteria</li></ul>   |
| 12 | Do you mind if we use cloud for data processing?                                       | <ul style="list-style-type: none"><li>• As long as the data collection (including data management) and analysis methods obey the legal framework of personal data protection in Indonesia, it would be fine</li><li>• However, if you request data from MRTJ and its data handling &amp; management methods need to be negotiated after being selected</li></ul> |
| 13 | What would be the payment terms be? 30 days or 60 days?                                | <ul style="list-style-type: none"><li>• This would be negotiable after being selected</li></ul>  |