



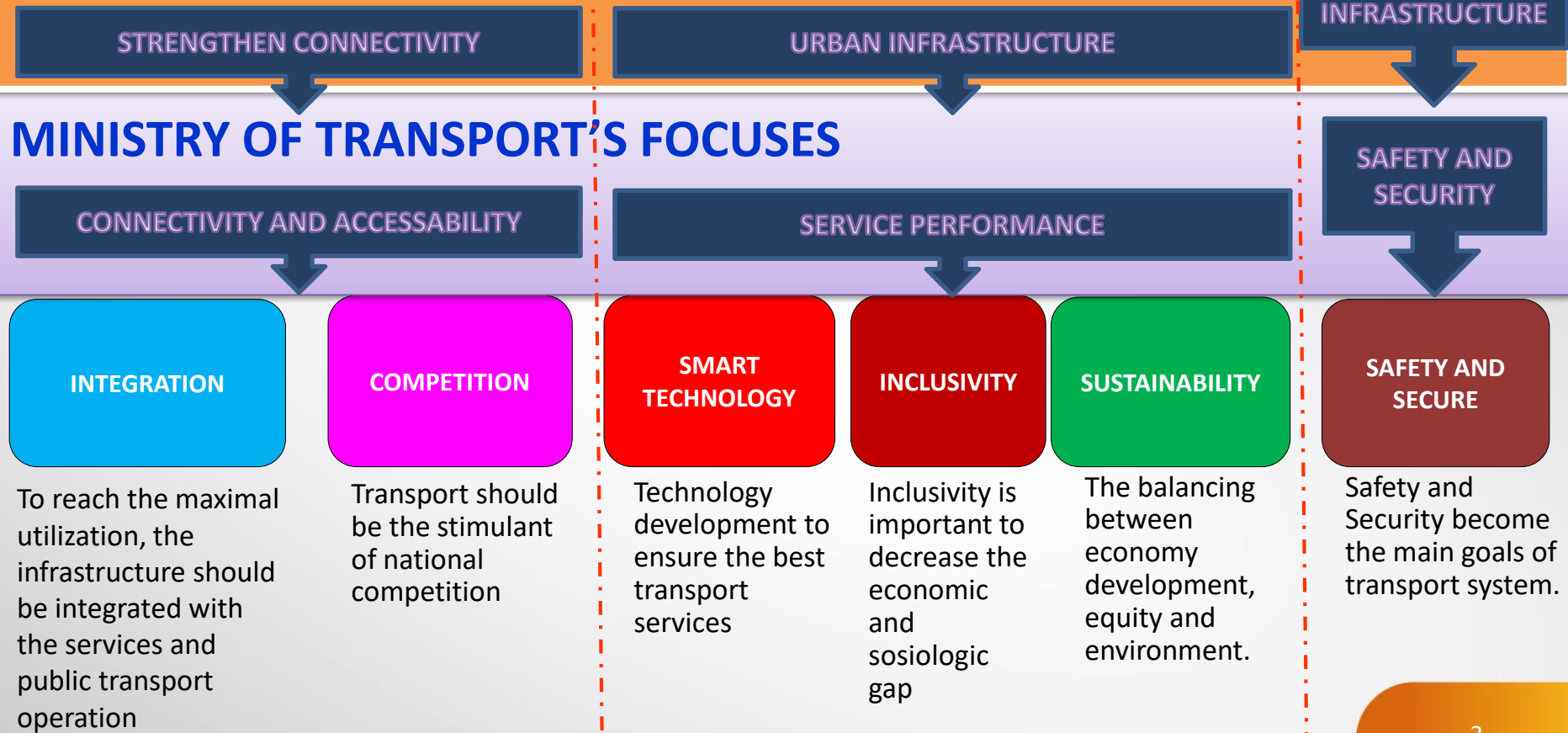
# JTTRI INTERNATIONAL SEMINAR

RESEARCH AND DEVELOPMENT AGENCY, MINISTRY OF TRANSPORTATION

# STRATEGIC ROLE OF RESEARCH & DEVELOPMENT AGENCIES MINISTRY OF TRANSPORTATION



# MID TERM NATIONAL DEVELOPMENT PLAN 2020-2024



## RESEARCH AND DEVELOPMENT AGENCY'S FOCUSES

# COLLABORATION WITH JAPAN



2019:

Research and Development Agency- Civil Aviation Bureau MLIT Japan:

“Joint Research in the field of Public Private Partnership for Indonesian Airport Infrastructure Development”

2020:

a. Research and Development Agency-Civil Aviation Bureau MLIT Japan:

“ Joint Research in the field of Smart Airport Design Arrangement for Airports in the New Capital City of Indonesia”

b. Research and Development Agency-Chiba University:

“Joint Research in the field of Anti Bird Strike Radar Development for Airports”



More Collaboration Opportunities:

1. Expert Sharing;
2. Joint research in the field of Land Transport, Railways, Logistics, and Multimode Transport;
3. Research Publication;
4. Transport Technology Development.

# GREATER JAKARTA URBAN RAILWAY TRANSPORT DEVELOPMENT PROGRAMS



# JABODETABEK RAILWAYS TRANSPORT MASTER PLAN

1

LRT line development in Jabodebek area

4

Airport railway development

2

Automated People Mover (APM)/Automated Guideway Transit (AGT)/Tram development

5

Jakarta elevated loop line railway development

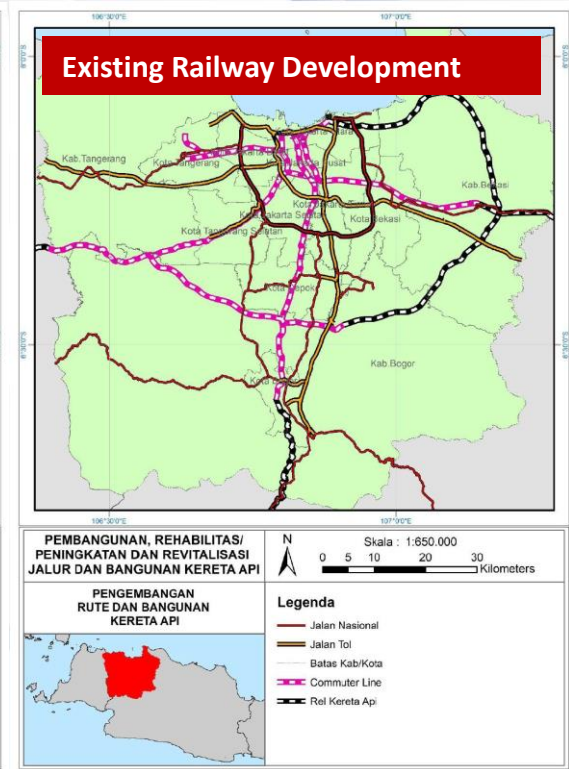
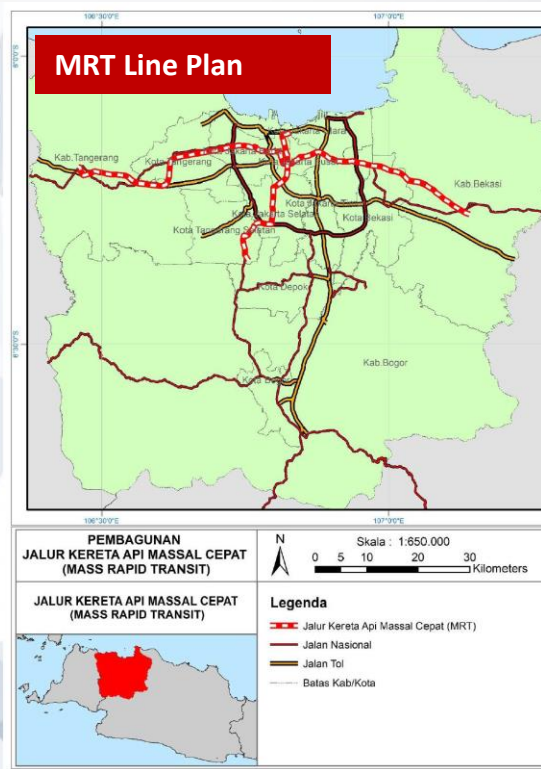
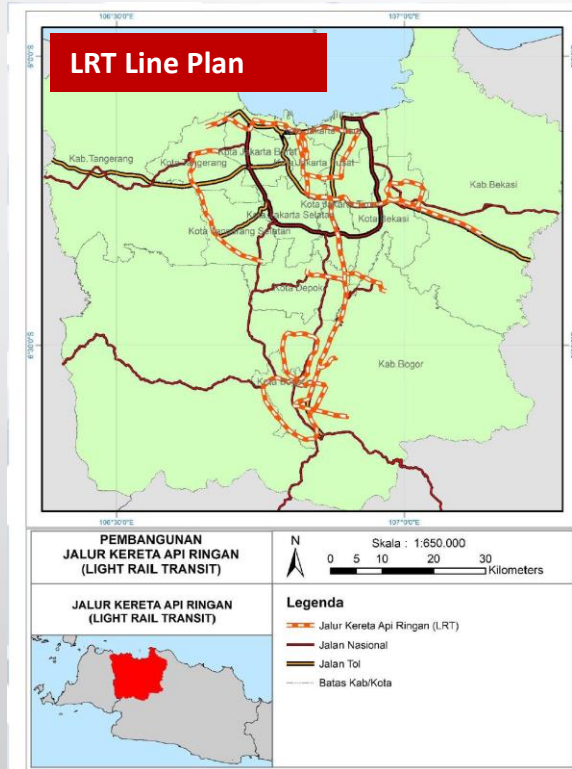
3

MRT line development, consist of North – South line and West – East line

6

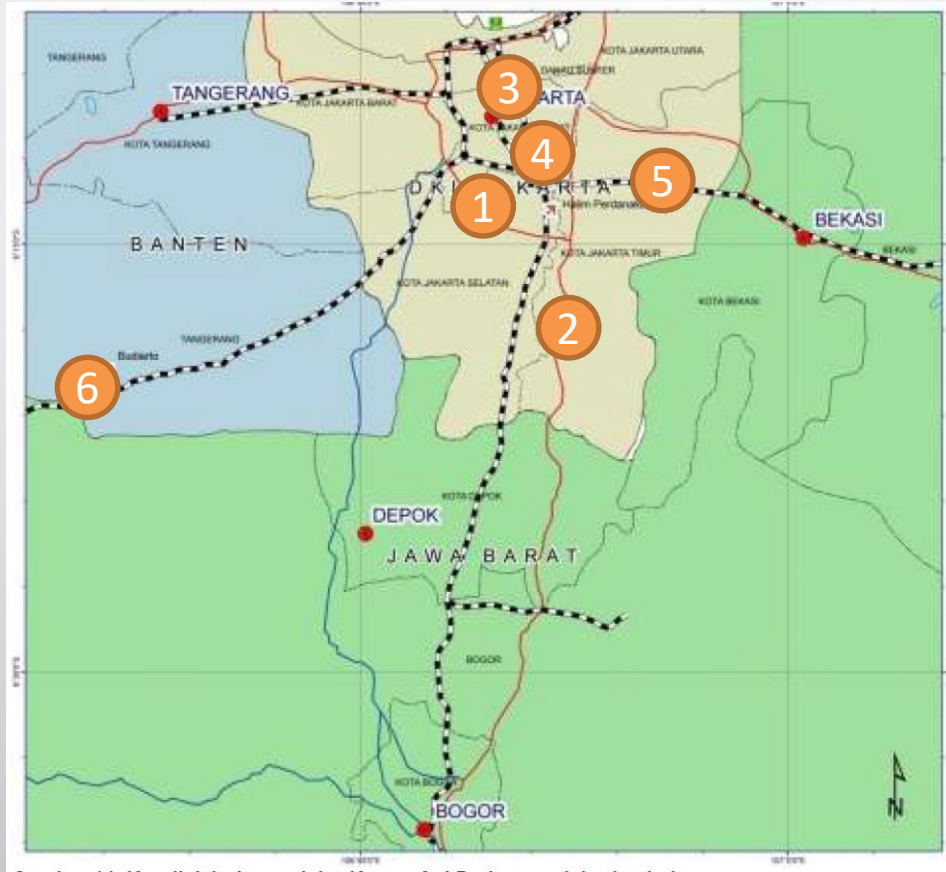
Double track line development

# GREATER JAKARTA TRANSPORTATION MASTER PLAN



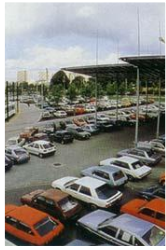
**RESOURCE:** President Regulation No. 55 of year 2018 concerning Jabodetabek Transportation Master Plan

# GREATER JAKARTA URBAN RAILWAY TRANSPORT DEVELOPMENT PROGRAMS (ON GOING)



| PROGRAM                                                                            | KM   | TAHAPAN |      |      |      |      |      |      |      |      |      |
|------------------------------------------------------------------------------------|------|---------|------|------|------|------|------|------|------|------|------|
|                                                                                    |      | 2015    | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| <b>1. MRT Jakarta Utara - Selatan</b>                                              |      |         |      |      |      |      |      |      |      |      |      |
| • Fase 1 (L. Bulus – HI)                                                           | 15,7 |         |      |      |      |      |      |      |      |      |      |
| • Fase 2 (HI – Kota – K. Bandan)                                                   | 9    |         |      |      |      |      |      |      |      |      |      |
| <b>2. LRT Jabodetabek (Cawang – Cibubur, Cawang – Bekasi, Cawang – Dukuh Atas)</b> | 44,4 |         |      |      |      |      |      |      |      |      |      |
| <b>3. LRT Jakarta (Velodrome– K.Gading)</b>                                        | 5,7  |         |      |      |      |      |      |      |      |      |      |
| <b>4. Elevated Loopline</b>                                                        | 25,4 |         |      |      |      |      |      |      |      |      |      |
| <b>5. DDT Manggarai – Cikarang</b>                                                 | 35,8 |         |      |      |      |      |      |      |      |      |      |
| <b>6. DT &amp; Elektrifikasi Maja - Rangkasbitung</b>                              | 17,2 |         |      |      |      |      |      |      |      |      |      |

## Next... SUPPORTING PROGRAMS



**Park n Ride facility development in railway station area;**



**Business and residential area development integrated with public transport network;**



**Feeder transport development to connect with railway station;**



**Train Station in area and along the train line restructuring**



**Flyover/underpass development for level crossing problem solving;**



# THE IMPORTANT THINGS to Develop Urban Railway Network

## Land ACQUISITION Interaction Strategic

for Park n Ride facilities;  
TOD Development;  
Transportation Impact Control (TIC);  
First mile – Last mile accessibility development

**Innovative Methodology and  
technology Distribution**

## Urban Mobility Improvement Strategic

Public transport function optimalization through urban  
infrastructure improvement (road and multimodal  
infrastructures), urban transport and expedition improvement;



## Eco-Friendly

Pollution reduction with  
Mengurangi beban polusi kota  
dengan mengurangi greenhouse  
emission gas, air, and noise  
pollution

## Integration

All stakeholders are connected in one  
system

## Funding Scheme Options

## Safety Improvement

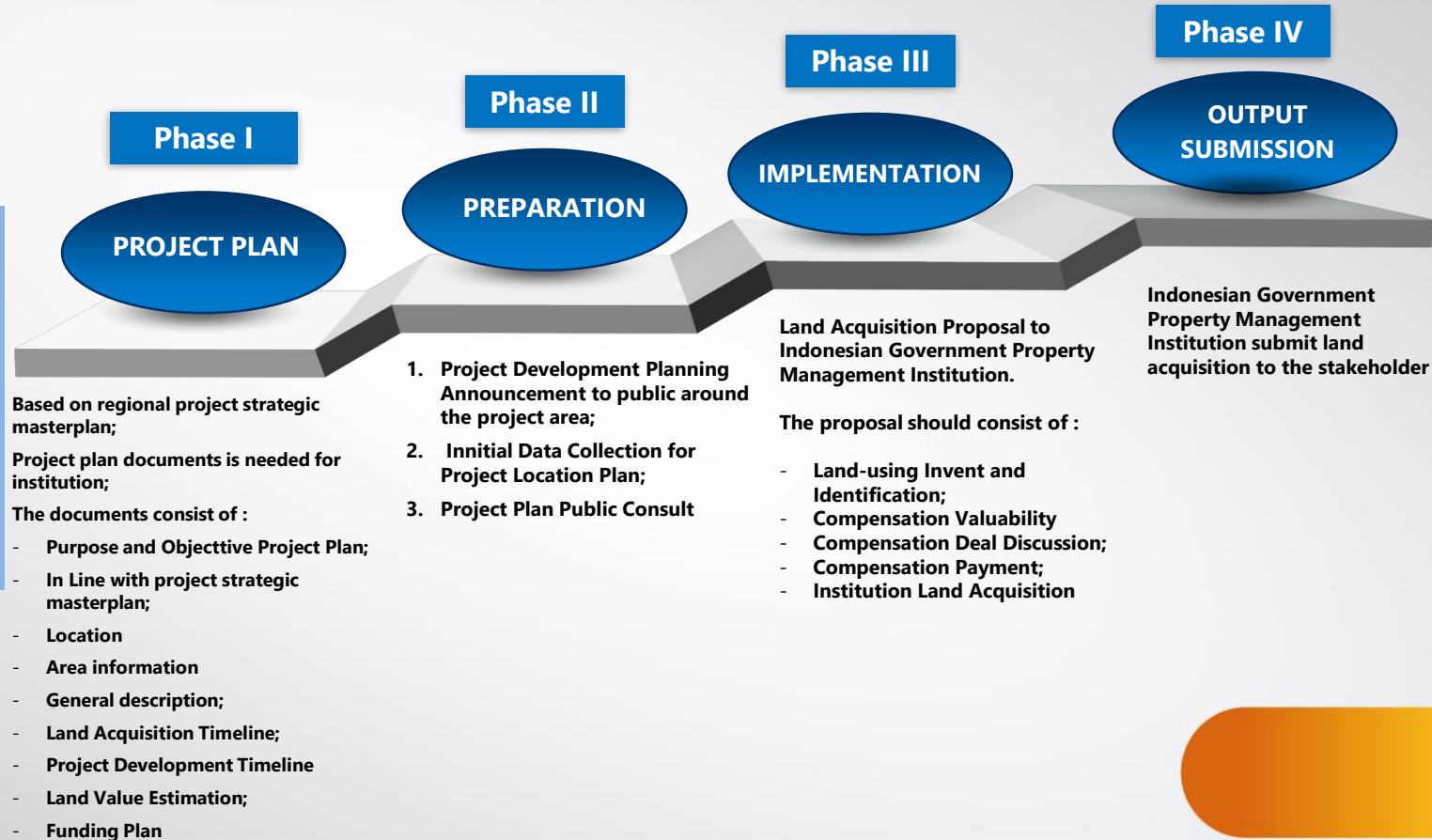
Infrastructures and facilities development to support  
Safety awareness

**PROBLEM AND PERSPECTIVE  
OF  
LAND ACQUISITION FOR URBAN  
RAILWAY PROJECT AND TOD  
DEVELOPMENT  
(Case Study : LRT Jabodebek)**



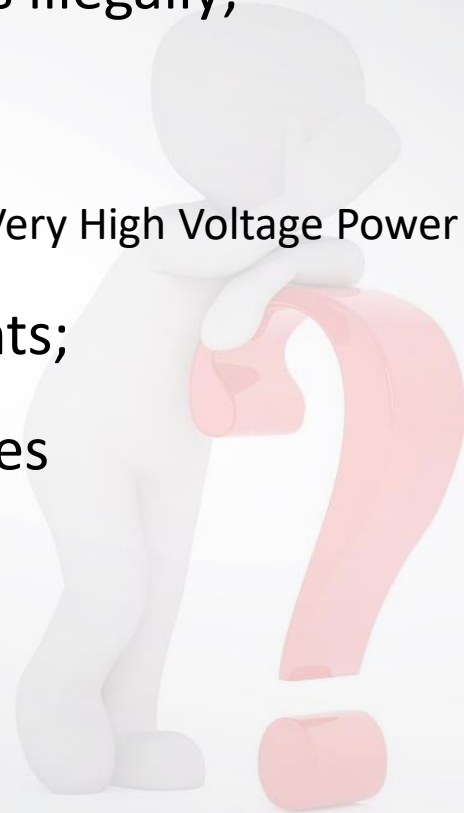
# LAND ACQUISITION WITH INDONESIAN GOVERNMENT PROPERTY MANAGEMENT INSTITUTION FUNDING

## PUBLIC LAND ACQUISITION



## LAND ACQUISITION PROBLEMS

1. State-Owned land is used by others illegally;
2. Spatial and land-used limitation;
3. Utility relocation (Pipe networks, FO, Very High Voltage Power Lines (SUTET), etc)
4. Social problems of affected residents;
5. Long-term law stage of land disputes



# DESIGN ENGINEERING FOR ACQUISITION LAND OPTIMALIZATION

RESEARCH AND DEVELOPMENT AGENCY, MINISTRY OF  
TRANSPORTATION



# DESIGN ENGINEERING FOR ACQUISITION LAND OPTIMALIZATION



Depot development and integrated Jakpro LRT Station consist of commercial and residential facilities

# DESIGN ENGINEERING FOR ACQUISITION LAND OPTIMALIZATION



Depot in a compact designed to optimize the space



**THANK YOU**



**RESEARCH AND DEVELOPMENT AGENCY, MINISTRY OF  
TRANSPORTATION**



# ATTACHMENT



RESEARCH AND DEVELOPMENT AGENCY, MINISTRY OF  
TRANSPORTATION



## JABODETABEK RAILWAY PROJECT

1. JABODEBEK URBAN RAILWAY TRANSPORT  
DEVELOPMENT PROGRAMS

2. *MASS RAPID TRANSIT* NORTH – SOUTH  
LINE (PSN)

3. JABODEBEK *LIGHT RAIL TRANSIT* (PSN)

4. JAKARTA *LIGHT RAIL TRANSIT* (PSN)

5. JAKARTA *ELEVATED LOOPLINE* (PSN)

6. MANGGARAI – CIKARANG *DOUBLE  
DOUBLE TRACK*

7. MAJA – RANGKASBITUNG *DOUBLE TRACK  
AND ELECTRIFICATION*



2<sup>nd</sup>

# ***MASS RAPID TRANSIT NORTH – SOUTH LINE***

## A. JAKARTA MRT NORTH – SOUTH LINE PHASE 1 PROFILE



### DESCRIPTION

Phase 1 connects **Lebak bulus to Bundaran HI** over 15.7 Km (from 24.7 Kilometers- NS total length) with consists of 7 elevated stations (9.8 Km), 6 underground stations (5.8 Km), and 1 depot at Lebak Bulus.

### PROGRESS

ACCOMPLISHED



Start operations in Maret 2019



# MRT JAKARTA Roleplays For Better Jakarta (RITJ concept)



**Transporting 173.000 persons per day in the 1<sup>st</sup> year of operation**



**Reducing travel time from Lebak Bulus to Bundaran HI over 28 minutes**



**Reducing Carbondioxide emission from 30.000 tons vehicle fuel combustion**



**Creating more jobs over 48.0000 job opportunities during 5 years construction**



**Reducing traffic accident rates and increasing social and economic development**

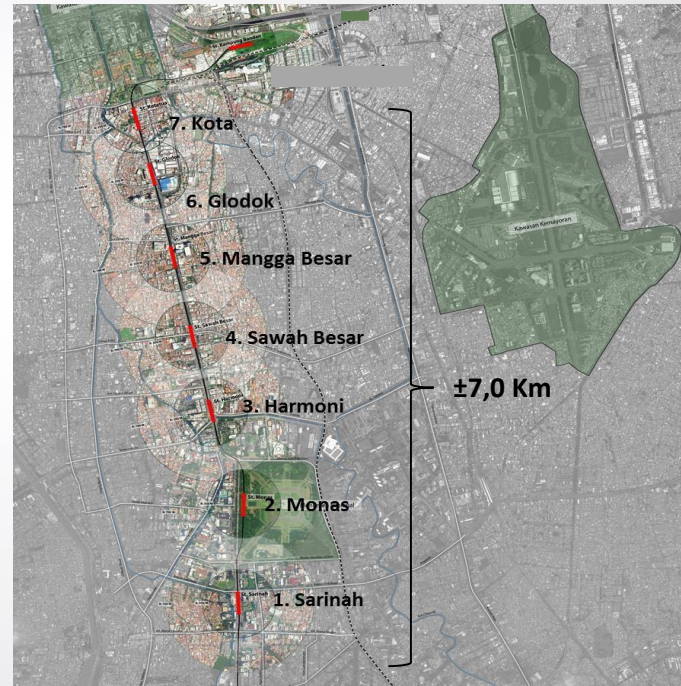


## B. JAKARTA MRT NORTH – SOUTH LINE PHASE 2

*MRT Phase 2 (Bundaran HI - Kp. Bandan) started with 2A phase (Bundaran HI – Kota) because there is a land acquisition problem in Kampung Bandan*



PHASE 1 (Lb. Bulus – Bundaran HI)  
PHASE 2 (Bundaran HI - Kp. Bandan)



PHASE 2A (Bundaran HI – Kota)

## Next... (MRT NORTH – SOUTH LINE PHASE 2 PROGRESS DETAILS)

- Phase 2A consist of 3 underground construction packages and 1 Local Competitive Bidding (LCB) at Monas Area;
- 3 underground construction packages use international bidding scheme (*JICA Guideline*) with consist of Bundaran HI – Harmoni (CP 201), Harmoni – Mangga Besar (CP 202), and Mangga Besar – Kota (CP 203).

# MRT JAKARTA North - South Line

1

## Phase

Phase 1 connects **Lebak bulus to Bundaran HI** over 15.7 Km with consists of 7 elevated stations, 6 underground stations, and 1 depot at Lebak Bulus.

2 A

## Phase

Phase 2A consists of 7 underground stations. The line has a total length of 5.8 KM from Bundaran HI to Kota.

2 B

## Phase

This phase will be 5.2 Km long and stretches from **Kota to Ancol Barat**. Consists of 3 underground stations and 1 station at grade. Phase 2B has 1 depot will be take placed at Ancol Barat.

Interchange is planned at Sarinah Station (Thamrin)



## CHALLENGES



1. **Multilevel Station** at Sawah besar and Mangga Besar due to limited area (impact to technical);
2. **Utility** (impact to technical, timeline, and cost);
3. Phase 2 of MRT passes **Heritage Objects** (Kota Tua, Glodok) **and National Objects** (Monas, Presidential Place, BI). It has impact to technical, timeline, and cost;
4. **Soil improvement areas;**
5. **Land subsidence and soft soil at Sarinah Station**



3<sup>rd</sup>

**LRT JABODEBEK**

# A. JABODEBEK LRT INFRASTRUCTURE PROGRESS

**Lintas Pelayanan 1**  
**Cawang – Cibubur**  
(14,89 Km, 4  
Stasiun)



**Lintas Pelayanan 2**  
**Cawang – Dukuh Atas**  
(11,05 Km, 8 Stasiun)



**Lintas Pelayanan 3**  
**Cawang – Bekasi Timur**  
(18,49 Km, 5 Stasiun)



## DESCRIPTION

LRT infrastructure development in Jakarta, Bogor, Depok dan Bekasi (Jabodebek) has 44,43 Km long and divided into 3 services.

## THE BENEFITS

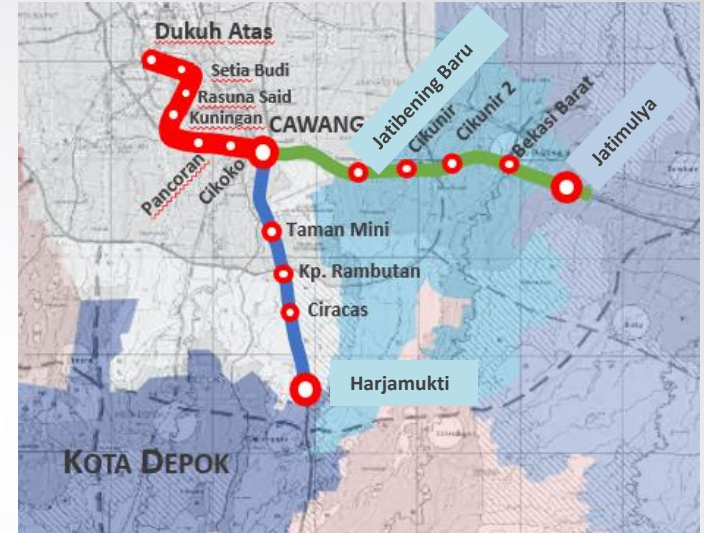
- Urban economic improvement and development;
- To reduce urban traffic;
- To built eco-friendly and integrated urban transport.

## STATUS

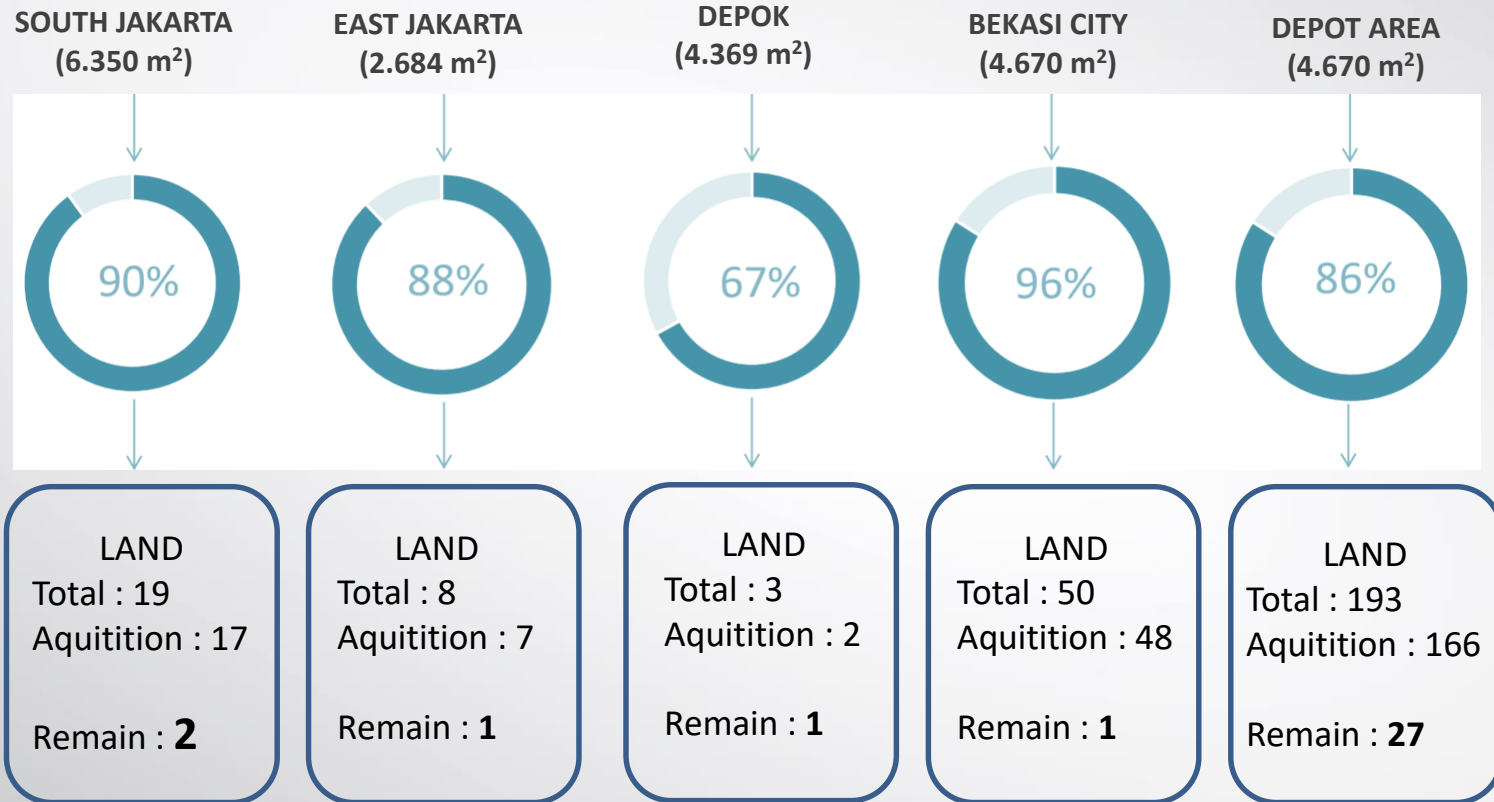
Total progress up to 31 Jan 2020 at **70.003%** :

- |                                               |                  |
|-----------------------------------------------|------------------|
| • <b>Service line 1 (Cawang-Cibubur)</b>      | <b>: 87,261%</b> |
| • <b>Service line 2 (Cawang-Dukuh Atas)</b>   | <b>: 64,146%</b> |
| • <b>Service line 3 (Cawang-Bekasi Timur)</b> | <b>: 62,307%</b> |

**START OPERATIONAL TARGET July 2020**



## B. LAND REQUIREMENTS





| Land Requirement                                                                       | Land Acquisition                                                                                                                                    | Remain                                                                                   | Progress & Problem                           | Follow Up                                                                                                                                                                                 | Institution                                    |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>DEPOK</b>                                                                           |                                                                                                                                                     |                                                                                          |                                              |                                                                                                                                                                                           |                                                |
| <b>Area : 4.369 m<sup>2</sup></b><br><b>Num of Owner: 2</b><br><b>Num of field : 3</b> | <b>Area : 240 m<sup>2</sup></b><br>Num of Owner: 1<br>Num of field : 2<br><br>Compensation payment was pay off on June 5, 2018 at Depok Land Office | Area : 4.129 m <sup>2</sup><br>Num of Owner : 1<br>Num of field : 1<br>(Kwarnas Pramuka) | Kwarnas National object Status Clarification | <u>MoM on 9 Mei 2018 at Coordinating Ministry for Maritime and Investment Affairs;</u><br><br>Ministry of Finance to review the letter concerning about Kwarnas status as National object | Directorate General of State Assets Management |





| Land Requirement                                                                     | Land Acquisition                                                                                                                                             | Remain                                                            | Progress & Problem                                                                                                                                              | Follow Up                                                                                                                        | Institution                                                                                                                                    |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EAST JAKARTA</b>                                                                  |                                                                                                                                                              |                                                                   |                                                                                                                                                                 |                                                                                                                                  |                                                                                                                                                |
| <b>Area : 3.188 m<sup>2</sup></b><br><b>No. Owner : 7</b><br><b>No. of Field : 8</b> | <b>Area : 2.508 m<sup>2</sup></b><br>No. of Owner : 4<br>No. of Field : 5<br><br>Compensation payment was pay off on June 6, 2018 at Cibubur District office | Area : 680 m <sup>2</sup><br>No. of Owner : 3<br>No. of Field : 3 | 1 bidang (Ijah binti Salim)<br>Pemilik tidak dapat menunjukkan bukti kepemilikan karena sedang berperkara dengan Lembaga Pembiayaan                             | Diperlukan bukti kepemilikan dari pemilik (Ijah binti Salim) dengan bantuan lembaga pembiayaan                                   | - Ijah binti Salim<br>- BPN Jaktim                                                                                                             |
|                                                                                      |                                                                                                                                                              |                                                                   | 2 bidang <b>TIDAK MAU</b> dibebaskan dengan alasan mengurangi KDB (Koefisien Dasar Bangunan), namun menyerahkan tanahnya untuk digunakan untuk ruang publik LRT | Diperlukan surat pernyataan dari pemilik bahwa bersedia tanahnya digunakan untuk LRT dan tidak membangun di atas tanah tersebut. | <ul style="list-style-type: none"> <li>• PT Metroplitan Development</li> <li>• PT Sumber Sentosa Guna Lestari</li> <li>• BPN Jaktim</li> </ul> |





| Land Requirement | Land Acquisition | Remain | Progress & Problem | Follow Up | Institution |
|------------------|------------------|--------|--------------------|-----------|-------------|
|------------------|------------------|--------|--------------------|-----------|-------------|

### JAKARTA SELATAN

Luas : 7.582 m<sup>2</sup>  
Jumlah  
Pemilik:10  
Jumlah Bidang  
:18

-

Luas : 7.582 m<sup>2</sup>  
Jumlah Pemilik : 10  
Jumlah Bidang : 18

- Sesuai Hasil Reviu BPKP :
  - Sebanyak 13 bidang yang **DAPAT DIBAYARKAN**;
  - Sebanyak 5 bidang **BELUM DAPAT DIBAYAR**, dengan catatan : 1 bidang merupakan tanah negara, 2 bidang perlu pembuktian alas hak, 2 bidang perlu perbaikan Daftar Nominatif.
- Sesuai laporan BPN Jaksel :
  - Sebanyak 7 Pemilik **SUDAH** menanda tangani Berita Acara Musyawarah Bentuk Ganti Kerugian, 5 pemilik **TELAH DIVALIDASI**;
  - Sebanyak 3 Pemilik **BELUM** menandatangani BA, yaitu : PT.Jasindo, PT.Dong Bang dan PT.Inti Insan Sentosa.
- PT Inti Insan Sentosa**, mengajukan keberatan ke Pengadilan Negeri Jaksel terkait hasil penilaian ganti rugi.

5 sedang diusulkan Pembayaran UGR oleh LMAN

Penilaian Ulang oleh KJPP

sidang gugatan direncanakan pada tanggal 23 Juli 2018 di PN

- BPN Jaksel;
- KJPP;
- Pemilik Tanah.





| Land Requirement                                                                             | Land Acquisition | Remain                                                                                       | Progress & Problem                                                                                                                                                                             | Follow Up                                             | Institution                                                                                         |
|----------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>KOTA BEKASI</b>                                                                           |                  |                                                                                              |                                                                                                                                                                                                |                                                       |                                                                                                     |
| <b>Luas : 9.525 m<sup>2</sup></b><br><b>Jumlah Pemilik : 50</b><br><b>Jumlah Bidang : 51</b> | -                | <b>Luas : 9.525 m<sup>2</sup></b><br><b>Jumlah Pemilik : 50</b><br><b>Jumlah Bidang : 51</b> | <ul style="list-style-type: none"> <li>• 2 Kelurahan (19 Pemilik) sedang dinilai oleh KJPP;</li> <li>• 1 Kelurahan (32 Pemilik) menunggu Perbaikan Danom sebelum dinilai oleh KJPP.</li> </ul> | Reviu BPKP, selanjutnya musyawarah bentuk ganti rugi. | <ul style="list-style-type: none"> <li>• BPN Kota Bekasi</li> <li>• KJPP</li> <li>• BPKP</li> </ul> |





| Land Requirement                                                                           | Land Acquisition | Remain                                                                                     | Progress & Problem                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Follow Up                                                                                                                             | Institution                                                                     |
|--------------------------------------------------------------------------------------------|------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| <b>KABUPATEN BEKASI</b>                                                                    |                  |                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                       |                                                                                 |
| <p>Luas : 117.525 m<sup>2</sup></p> <p>Jumlah Pemilik : 300</p> <p>Jumlah Bidang : 191</p> | -                | <p>Luas : 117.525 m<sup>2</sup></p> <p>Jumlah Pemilik : 300</p> <p>Jumlah Bidang : 191</p> | <ul style="list-style-type: none"> <li>Hasil inventarisasi tanah dan bangunan, secara keseluruhan telah diumumkan :               <ol style="list-style-type: none"> <li>Sebanyak 57 bidang, telah dilakukan Musyawarah Bentuk Ganti Kerugian dan penyampaian hasil appraisal pada tanggal 7 Juni 2018, namun semuanya <b>MENOLAK</b> hasil Penilaian KJPP dan mengembalikan kepada BPN Kab Bekasi, karena nilai ganti ruginya dibawah penilaian ganti rugi HSR pada kelurahan yang sama.</li> <li>Sebanyak 109 bidang, masih dilakukan perbaikan Peta Bidang dan Daftar Nominatif oleh BPN, sebagai tindak lanjut hasil</li> </ol> </li> </ul> | <ul style="list-style-type: none"> <li>Diusulkan Penilaian ulang oleh KJPP</li> <li>Percepatan Perbaikan Daftar Nominatif.</li> </ul> | <ul style="list-style-type: none"> <li>BPN Kab. Bekasi</li> <li>KJPP</li> </ul> |



## D. DOCUMENTATIONS



Lintas Pelayanan 3 (Cawang – Bekasi Timur)



Lintas Pelayanan 1 (Cawang – Cibubur)



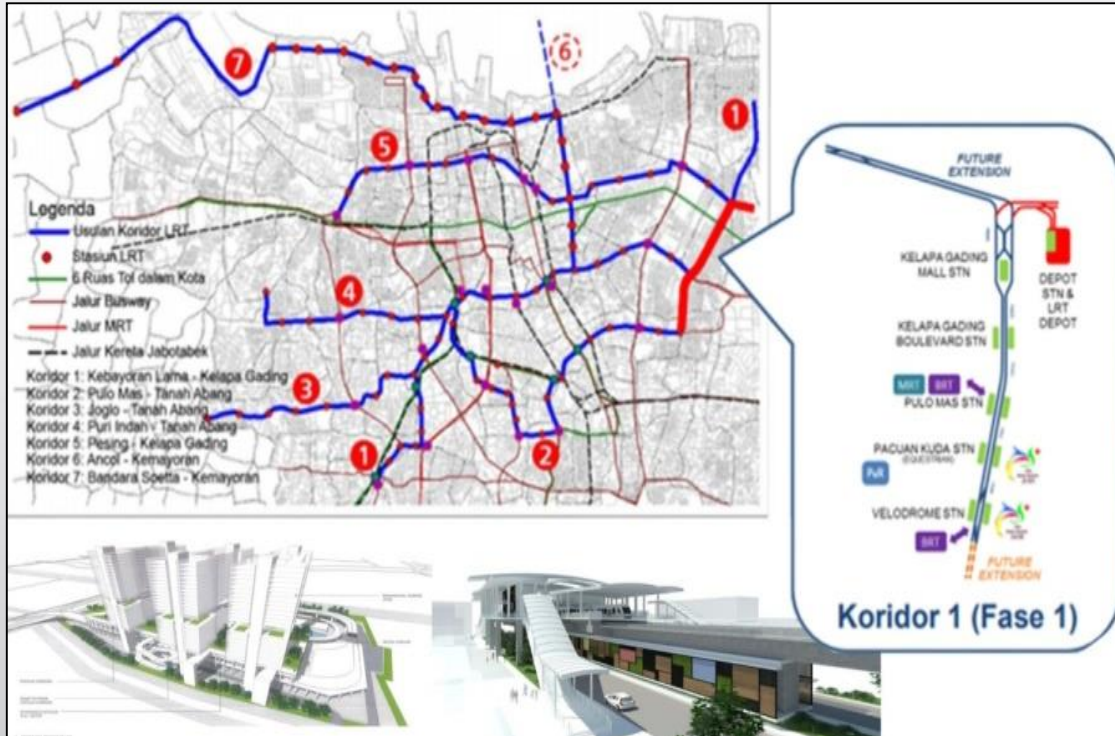
Lintas Pelayanan 2 (Cawang – Kuningan – Dukuh Atas)



4<sup>th</sup>

**LRT JAKARTA**

# A. JAKARTA LRT PROFILE



## DESKRIPSI

- Jakarta LRT line 1 consist of 6 elevated stations and 1 depot for LRVs (Light Rail Vehicles) maintenance area.
- Line 1 Phase 1 connects from Kelapa Gading to Velodrome in 5,8 Km with elevated track construction.
- It will be operated 8 articulates LRVs or 4 train sets (1 train set = 2 LRVs), with headway between 10-15 minutes.

## THE BENEFITS

- Service, Accessibility, and mobility development for Jakarta;
- Urban traffic density reduction
- As a *modal shifting* for DKI Jakarta
- To build an eco-friendly public transport for Jakarta

**FUNDING :** Rp. 7,345 billions (BUMD/Pemprov)

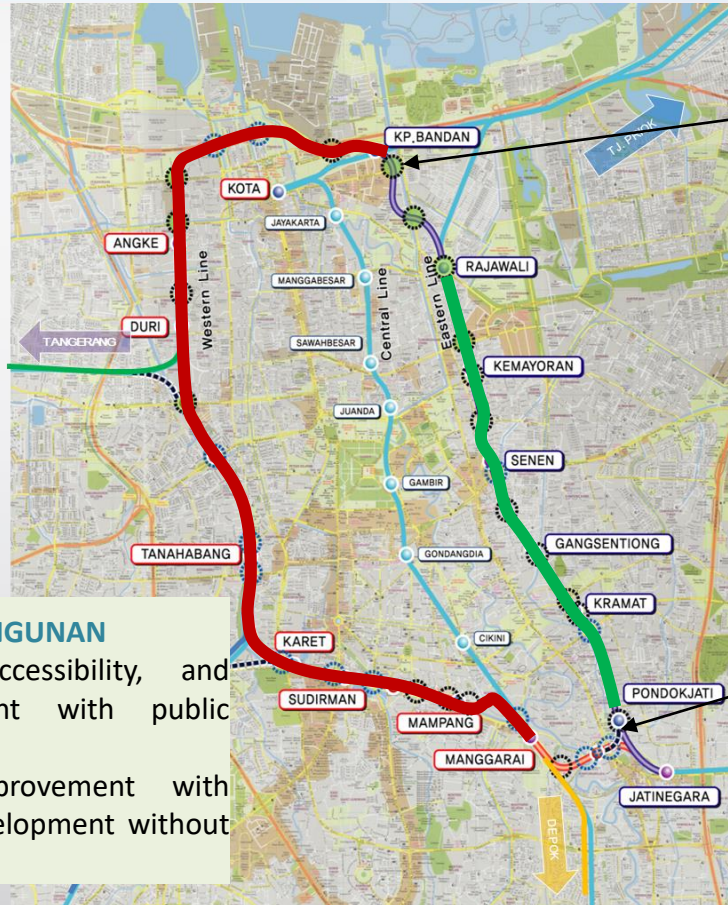
**Project Executor :** DKI Jakarta Provincial Government, PT. Jakarta Propertindo (JAKPRO)



5<sup>th</sup>

# ***JAKARTA ELEVATED LOOPLINE***

## A. JAKARTA ELEVATED LOOPLINE PROFILE



■ ■ ■ Shortcut Rajawali – Kampung Bandan (1,4 km)

— Pondokjati Station – Rajawali Segmen is 7,7 km in length, with height of elevated loopline is 8,5 m

— Manggarai Station – Tanah Abang – Kampung Bandan Segmen with 14,3 km in length and the height of elevated loopline is 15 m (notice to DDT project design Manggarai – Cikarang)

■ ■ ■ Shortcut Pondok Jati – Manggarai (2 km)

### NILAI MANFAAT PEMBANGUNAN

- Service capacity, accessibility, and mobility improvement with public transport in Jakarta;
- Transport safety improvement with elevated loopline development without level crossing needed

***INVEST VALUE:*** Rp 14,5 Billions (Infrastructure and facility development)

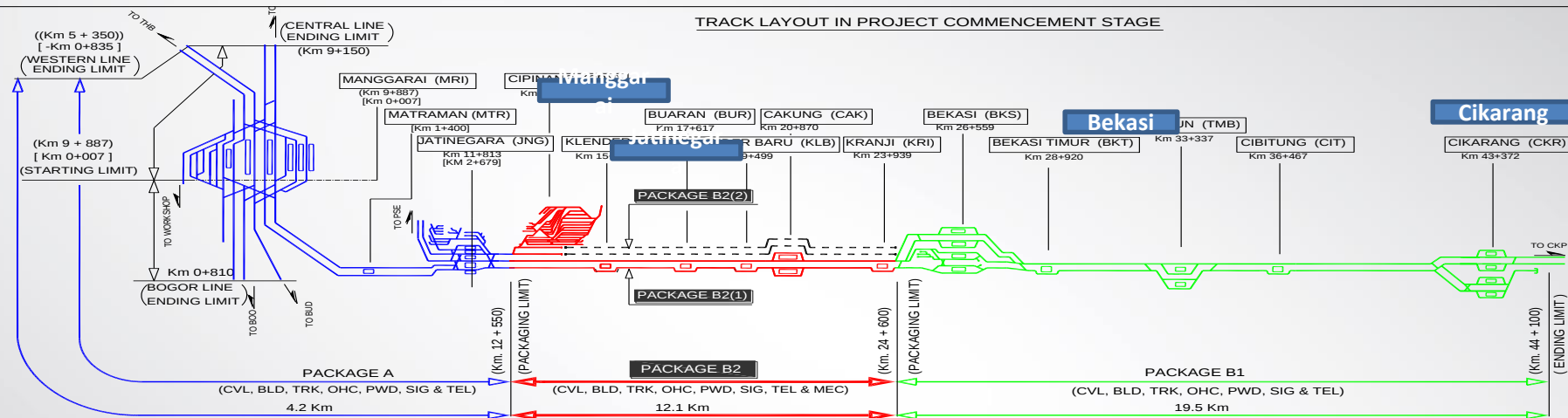


6<sup>th</sup>

# ***MANGGARAI – CIKARANG DOUBLE DOUBLE TRACK***

# A. MANGGARAI – CIKARANG DOUBLE DOUBLE TRACK DEVELOPMENT

TRACK LAYOUT IN PROJECT COMMENCEMENT STAGE



| NO | PENDANAAN   | PAKET PEKERJAAN | URAIAN KEGIATAN                                                                                                                                                | LINGKUP                  |
|----|-------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 1  | SBSN        | Paket A         | - Pembangunan Stasiun Manggarai, Matraman dan Jatinegara<br>- Pembangunan Jalan Layang Manggarai - Jatinegara<br>- Jalur Dwi Ganda Manggarai - Jatinegara      | MANGGARAI s/d JATINEGARA |
| 2  | JICA (Loan) | Paket B1        | - Elektrifikasi Bekasi - Cikarang<br>- Pembangunan Stasiun Bekasi, Bekasi Timur, Tambun, Cibitung dan Cikarang<br>- Persinyalan dan Telekomunikasi Manggarai - | BEKASI s/d CIKARANG      |
| 3  | SBSN        | Paket B2-1      | - Pembangunan Stasiun Klender, Buaran, Klender Baru, Cakung dan Kranji<br>- Pembangunan Depo Cipinang<br>- Persinyalan Track Baru Jatinegara - Bekasi          | JATINEGARA s/d BEKASI    |
| 4  | SBSN        | Paket B2-2      | Pembangunan Jalur Dwi Ganda (Track dan Jembatan)                                                                                                               | JATINEGARA s/d BEKASI    |

Project Finish Target : 2021

SBSN 2019-2021

Done

Done

## NILAI MANFAAT:

- Service improvement for 1.2 M persons in capacity (more reliable);
- Urban and intercity railway line separation including airport railway;
- Jabodetabek Commuter line service extension

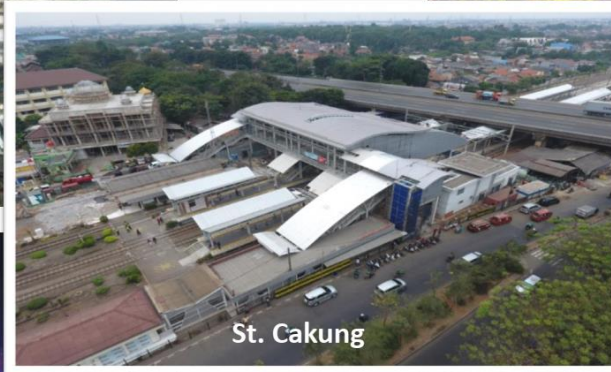
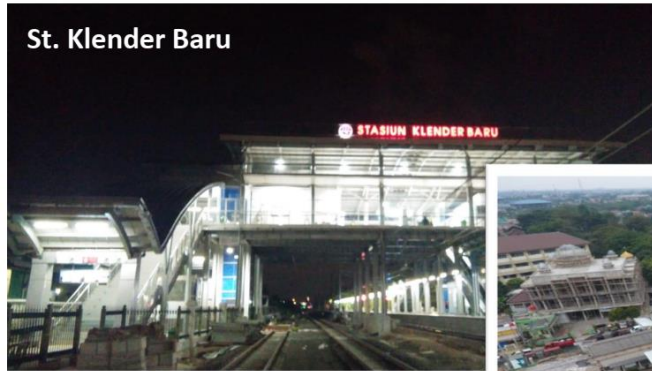
## B. MANGGARAI – CIKARANG *DOUBLE DOUBLE TRACK TIMELINE*

| NO. | KEGIATAN                                                | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|-----|---------------------------------------------------------|------|------|------|------|------|------|------|------|------|
| 1.  | Jalur KA Jatinegara - Bekasi                            | 100% |      |      |      |      |      |      |      |      |
| 2.  | Jalur KA Commuter Manggarai – Jatinegara (Elevated)     |      |      | 75%  |      |      |      |      |      |      |
| 3.  | Stasiun Manggarai (Sisi barat), Matraman, Jatinegara    |      |      | 55%  |      |      |      |      |      |      |
| 4.  | Stasiun Bekasi Timur, Cibitung, Cikarang (Sisi Selatan) | 100% |      |      |      |      |      |      |      |      |
| 5.  | Stasiun Klender, Buaran, Klender Baru, Cakung, Kranji   |      |      | 100% |      |      |      |      |      |      |
| 6.  | Depo Cipinang                                           |      |      | 100% |      |      |      |      |      |      |
| 7.  | Pengoperasian DDT Jatinegara - Kranji                   |      |      |      |      |      |      |      |      |      |
| 8.  | Pengoperasian DDT Manggarai - Kranji                    |      |      |      |      |      |      |      |      |      |
| 9.  | Stasiun Manggarai (Sisi Timur)                          |      |      |      |      |      |      |      |      |      |
| 10. | Jalur KA Main Line Manggarai-Jatinegara (Elevated)      |      |      |      |      |      |      |      |      |      |
| 11. | Stasiun Bekasi, Cikarang (Sisi Utara)                   |      |      |      |      |      |      |      |      |      |
| 12. | Pengoperasian DDT Manggarai-Bekasi                      |      |      |      |      |      |      |      |      |      |

 MARET 2021

 PERCEPATAN

## C. REBUILT JABODETABEK COMMUTER LINE STATION DOCUMENTATIONS (Part of B21 package)



### INVEST VALUE

Rp 254.940.787.000,-

### STATUS

Project accomplished and trial



7<sup>th</sup>

***MAJA – RANGKASBITUNG  
DOUBLE TRACK AND  
ELECTRIFICATION***

# A. MAJA – RANGKASBITUNG DOUBLE TRACK AND ELECTRIFICATION PROFILE



## DESCRIPTION

Maja - Rangkasbitung Double track and electrification development has a length of 17.2 km'sp. In addition, to support its operation, 1 station, 1 traction substation, 7 bridge units, were built.

## THE BENEFITS

- Can reduce traffic jam and railway travel time because it has 1 line.
- Service, Accessibility, and mobility development for passenger or freight and to improve railway operation safety.

## LOCATION

District/City : Kabupaten Serang – Kabupaten Lebak  
Provincy : Banten

## INVEST VALUE

Rp . 726.319.698.203,-

## STATUS

PROJECT ACCOMPLISHED, TRIAL TEST AND OPERATIONAL PREPARATION

