

CORPORATE PRESENTATION

JANUARY 2022



Confidential

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BUSINESS OVERVIEW

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MR TAY KIAT SENG
Executive Chairman and CEO

Mr Tay co-founded Memiontec in 1992 with Managing Director Ms Soelistyo Dewi Soegiharto. He has over 31 years of experience in the water treatment industry. Prior to co-founding Memiontec, Mr Tay spent two years as a senior manager at water treatment company, Watermac Engineering Pte Ltd. He started his career with Memtec Ltd, an Australian water treatment company, where he worked as a design engineer, focusing on the MEMCOR membrane product line for two years. Mr Tay graduated from the University of Strathclyde, United Kingdom, with a **Bachelor of Engineering in Mechanical Engineering** in 1988 and is a member of Singapore Institute of Directors.


MS SOELISTYO DEWI SOEGIHARTO
Managing Director

Ms Dewi co-founded Memiontec in 1992 with Executive Chairman and CEO Mr Tay Kiat Seng. She has more than 28 years of experience in the water treatment business. Prior to co-founding Memiontec, she worked as a sales and project engineer for a year at Scotts center Pte. Ltd., a water treatment solutions company in Singapore. She was instrumental in developing the market and foundation of the Group's Indonesian subsidiary. Ms Dewi graduated from the University of New South Wales, Australia, with a **Bachelor of Engineering in Chemical Engineering** in 1991 and is a member of Singapore Institute of Directors.


MR LOW KIAN BENG
Executive Director

Mr Low is our Executive Director and he is involved in the decision making on the Group's operational and financial matters, together with rest of the Board. From 2010/11 to 2017, Mr Low was the Group Deputy CEO and Executive Director of ecoWise Holdings Limited, a Singapore SGX-listed environmental company. Prior to that from 2000 to 2006, he was the Managing Director and CEO of SP Corporation, a SGX-listed industrial services company, and from 2006 to 2010, he was the CEO of Envipure Pte Ltd. Mr Low obtained **his BSc Degree (with honours) in Engineering** from Imperial College of Science and Technology, London (UK) in 1980 and a Master of Business Administration Degree (with distinction) from Oklahoma City University, Texas (USA) in 1989. Since May 2012, Mr Low has served as a non-executive council member of the Sustainable Energy Association of Singapore.


MR LIM WEI KUAN
Director, Memiontec Pte Ltd

Mr Lim has been with the Group since his university graduation in 2006 when he joined as a Project & Application Engineer. He was promoted to General Manager of MPL in 2014 and in December 2019, Mr Lim was appointed to his current role as Director of MPL. As Director of MPL, Mr Lim is responsible for the overall design, engineering and overseeing project implementation, service and maintenance works in Singapore. He is also accountable to the Managing Director for the delivery of revenue, budget, cost control and overall performance of our subsidiary, MPL, in Singapore. Mr Lim obtained a **Bachelor of Engineering in Chemical Engineering** from the University of Malaya in 2006.


MR LEE QUANG LOONG
Chief Financial Officer

Mr Lee is our Chief Financial Officer and he joined Memiontec in August 2021. He is primarily responsible for the overall financial management of the Group including financial reporting, corporate finance, treasury, risk management and government frameworks. Mr Lee has more than 20 years of senior management experience, covering various functions in the field of finance, tax and audit, in specialist foundation engineering and construction, real estate, manufacturing and coal mining operations across the Asia Pacific Region. Mr Lee obtained his professional accountancy qualification from The Association of Chartered Certified Accountants (ACCA) in 1997 and is currently a member of the Institute of Singapore Chartered Accountant.

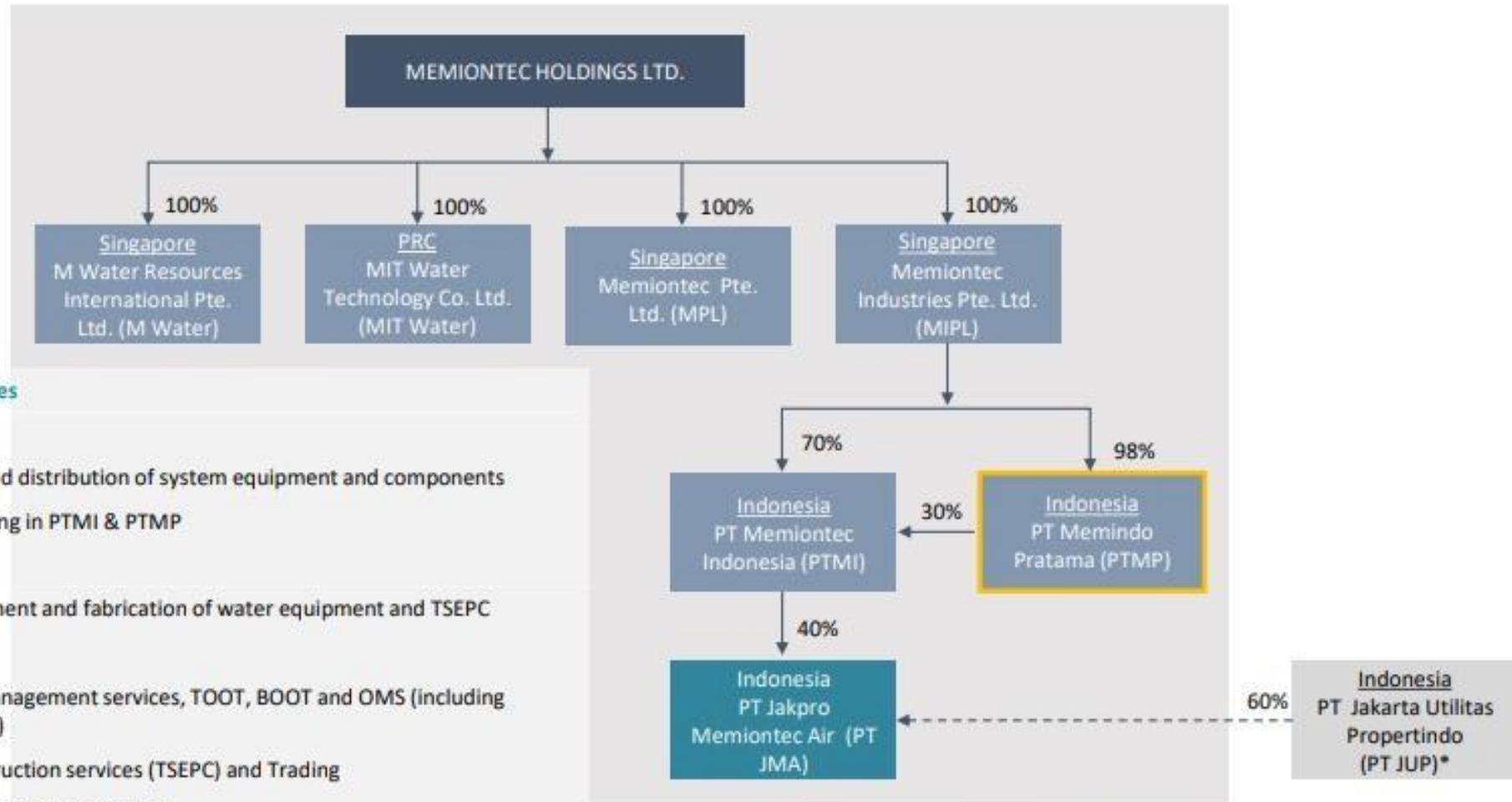

MS IRAWATI TAN
Director, PT Memiontec Indonesia

Ms Irawati first joined the Group in 2009. She assists our Executive Chairman and CEO in managing the overall business and operations in Indonesia and is responsible for sales and marketing, project execution, procurement, budget and cost control of the Group's Indonesia business units. Prior to Memiontec, she started her career at the Astel Group after graduation, where she held various roles, including budget and finance controller. Before Ms Irawati joined the Astel Group to join the Group in 2009, she last held the position of procurement manager. Ms Irawati graduated from Bina Nusantara University with a Bachelor of Accounting in 2004.

GROUP STRUCTURE

Business and Services	
Singapore	
MPL	<ul style="list-style-type: none"> TSEPC and OMS
M Water	<ul style="list-style-type: none"> Customisation and distribution of system equipment and components
MIPL	<ul style="list-style-type: none"> Investment holding in PTMI & PTMP
China	
MIT Water	<ul style="list-style-type: none"> Design, procurement and fabrication of water equipment and TSEPC
Indonesia	
PTMI	<ul style="list-style-type: none"> TSEPC, Water management services, TOOT, BOOT and OMS (including component sales)
PTMP	<ul style="list-style-type: none"> Integrated construction services (TSEPC) and Trading
PT JMA	<ul style="list-style-type: none"> Owner of BOOT and sales of water

Our Company has established effective control over 98.0% of PTMP; and a further 29.4% of PTMI through PTMP's 30.0% shareholding interest in PTMI, through MIPL. Accordingly, PTMI and PTMP are considered a 99.4% subsidiary and 98.0% subsidiary of our Company respectively.



* PT Jakarta Utilitas Propertindo ("PT JUP") is a wholly-owned subsidiary of PT Jakarta Propertindo, an enterprise which is ultimately owned by the state government, Daerah Khusus Ibukota Jakarta.

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A ONE-STOP INTEGRATED WATER TECHNOLOGY TOTAL SOLUTION PROVIDER - PROCESS, DESIGN & ENGINEERING DRIVEN



FILTRATION & MEMBRANE TECHNOLOGY

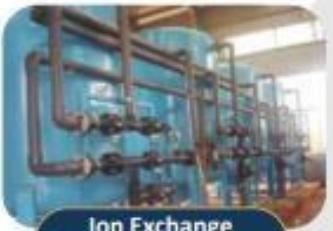
Brackish Water Reverse Osmosis System



Seawater Reverse Osmosis System



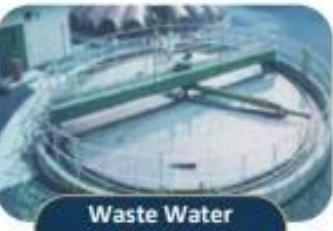
Ultra Filtration (UF)/Micro Filtration (MF) Pressurised Modules



Ion Exchange Process



Chemical Process

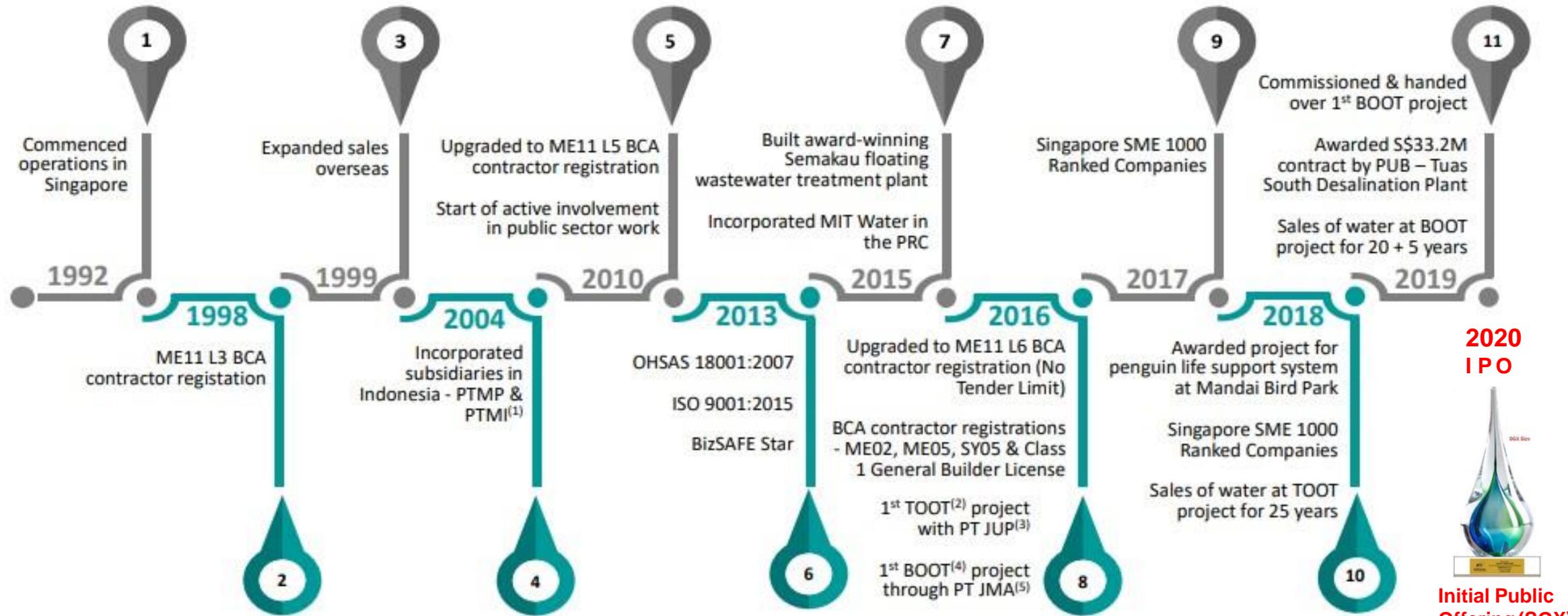


Waste Water Process



Water Recycling Process

OPERATING TRACK RECORD OF OVER 20 YEARS



(1) PTMP: PT Memindo Pratama; PTMI: PT Memiontec Indonesia

(2) TOOT: Transfer-Own-Operate-Transfer

(3) PT Jakarta Utilitas Propertindo ("PT JUP") is a wholly-owned subsidiary of PT Jakarta Propertindo, an enterprise which is ultimately owned by the state government, Daerah Khusus Ibukota Jakarta

(4) BOOT: Build-Own-Operate-Transfer

(5) PT Jakpro Memiontec Air ("PT JMA") is a joint venture entity. The remaining 60.0% of PT JMA is owned by PT JUP, an independent third party to the Group

DIFFERENTIATED BUSINESS MODEL FROM EXISTING KEY WATER INDUSTRY PLAYERS



TOTAL SOLUTIONS WITH ENGINEERING, PROCUREMENT & CONSTRUCTION SERVICES (TSEPC)

Customised processes and treatment solutions:

- Water
- Wastewater
- Water recycling
- Sea water & desalination

SALES & DISTRIBUTION OF SYSTEMS & EQUIPMENT

- Modular and customised water systems
- Water treatment equipment & components
- Blended/specialty chemicals
- Distributorship for membranes & media



PROJECTS WITH RECURRING INCOME

- Jointly owned BOOT and TOOT projects with a water supply agreement for a concessionary period
 - Develop, Design, Build, Operate and Maintain BOOT and TOOT projects

SALES OF WATER

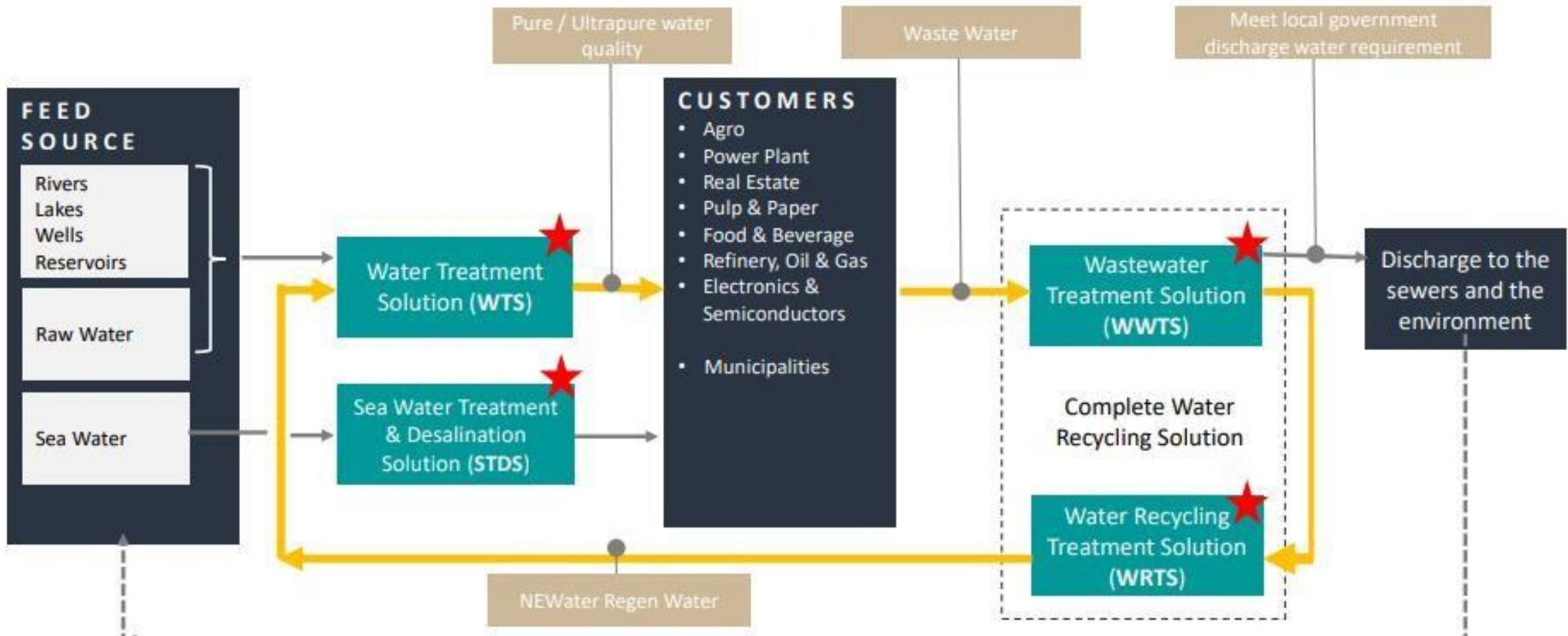
- Sell treated water

OPERATION, MAINTENANCE & SERVICE (OMS) OF WATER & WASTEWATER TREATMENT PLANTS

- Ongoing services for water treatment plants – owned and built and PUB works
 - Provision of technical support and consultation

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INNOVATIVE TECHNOLOGY PRODUCING ENVIRONMENTALLY GREEN & NEAR ZERO DISCHARGE SOLUTION



- Core inhouse capabilities & cost effective technological solution
- Customised solutions for specific requirements of customers, can offer as Lease to Own or BOOT

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PROCESS & DESIGN CAPABILITIES ACROSS MUNICIPALS & DIVERSE INDUSTRIES



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A DIVERSE & ESTABLISHED CUSTOMER BASE

Strong working relationships with customers that include:

- PUB - since 2014
- Sinarmas Group
- STATS ChipPAC
- PT JMA
- Petrochemical Corporation of Singapore (Private) Limited

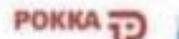
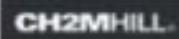
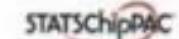
Customers over the past 20 years:

SINGAPORE

Public Sector



Microelectronics, Manufacturing & Food



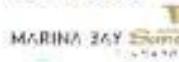
Heraeus



Keppel Seghers

kuraray

Others



INDONESIA

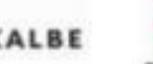
Public Sector



Power, Refinery, Palm oil & Food Industries

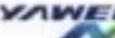


Others



CHINA & GLOBAL

Microelectronics, Manufacturing, Food & Other Industries



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QUALITY CERTIFICATIONS, MATERIAL LICENCES & AWARDS

High Safety Standards

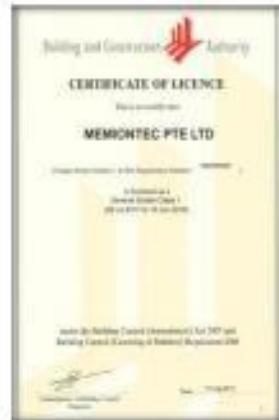
- ISO 45001:2018
- bizSAFE Star
- OHSAS 18001:2007

Quality Assurance

- ISO 9001: 2018

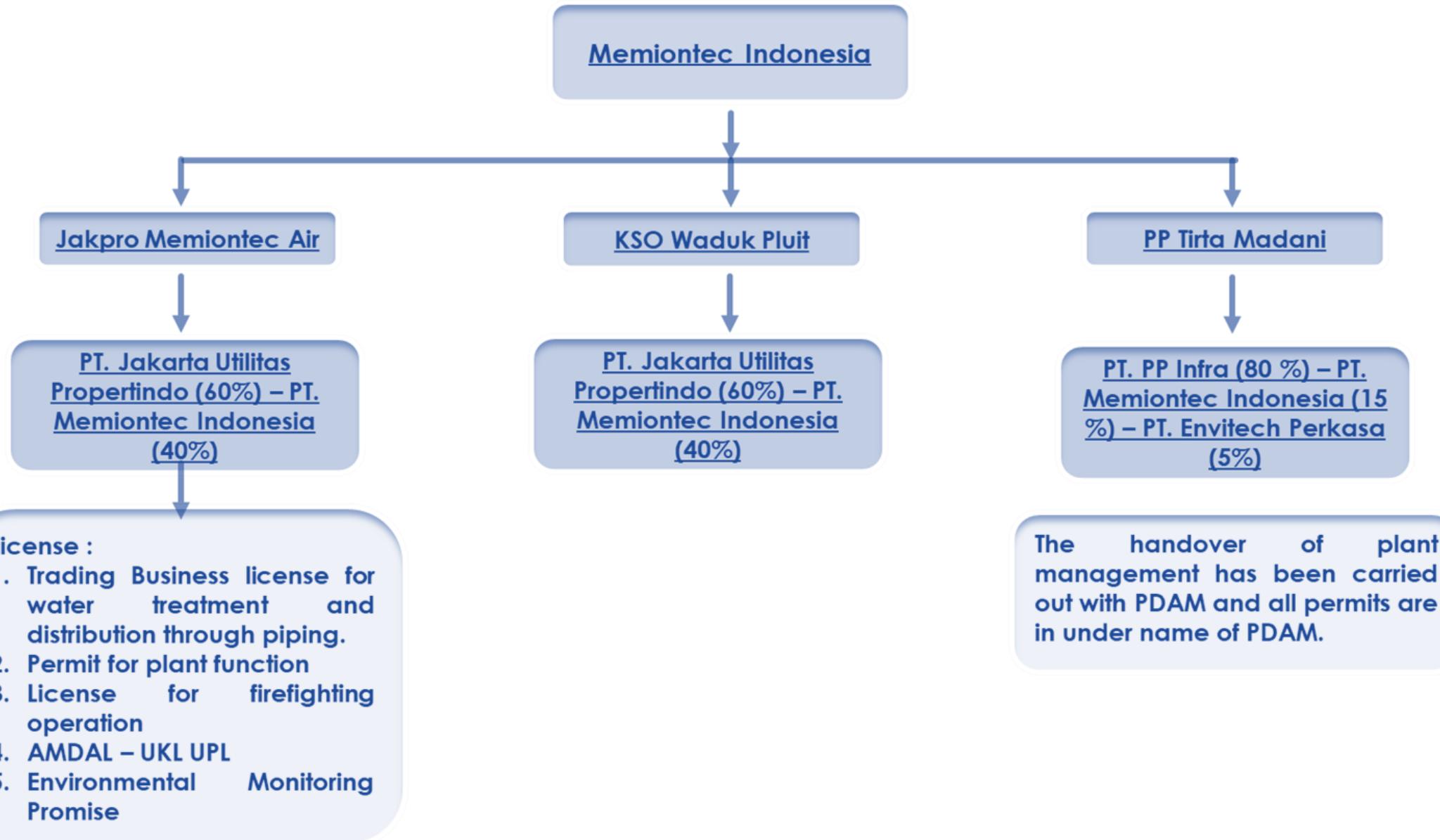
Material Licences

- BCA - ME02, ME05, ME11 and SY05 (Singapore)
- BCA - General Builder Class 1 (Singapore)
- Class B2 and B1 Class construction service licence (Indonesia)



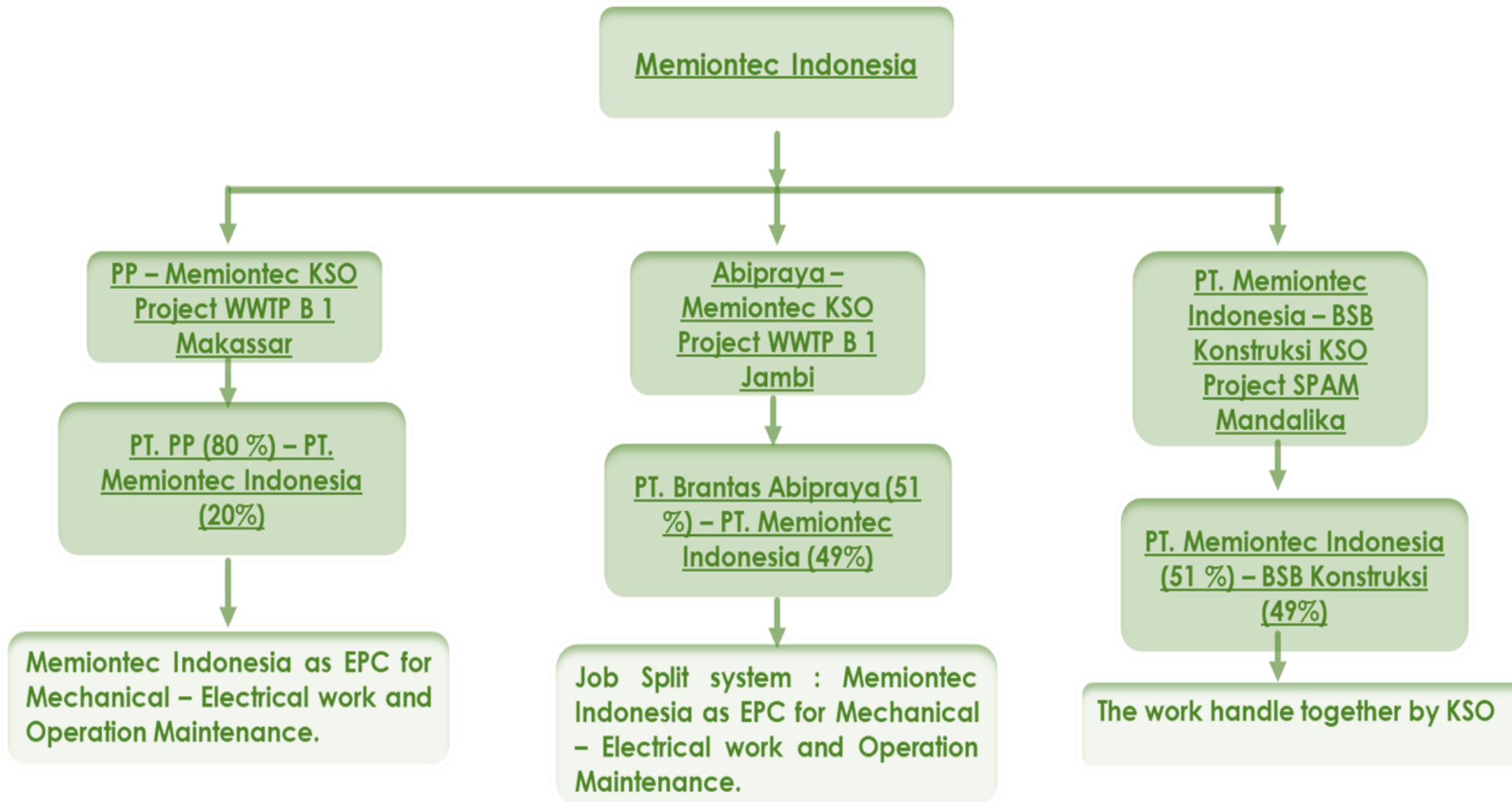
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Memiontec Indonesia's BOOT Joint Venture Structure



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Memiontec Indonesia's Project Joint Venture Structure



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REVERSE OSMOSIS MEMBRANE



UF / MF MEMBRANE



RESIN



MEDIA

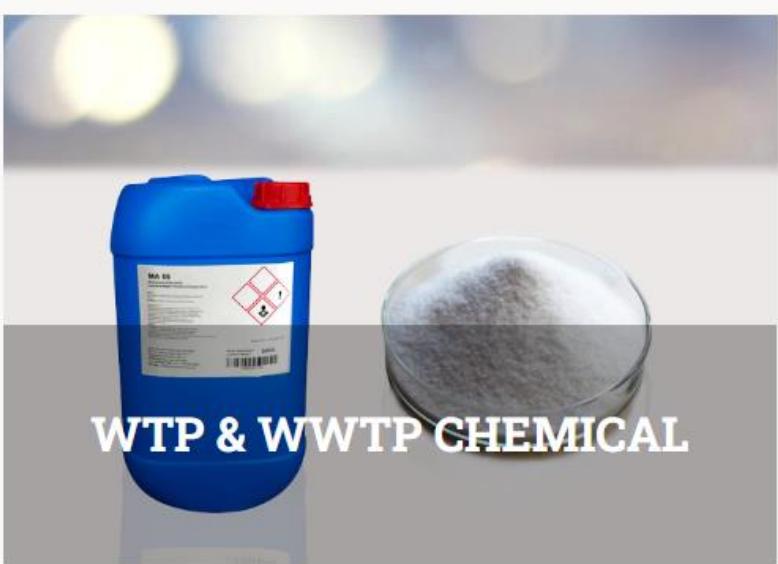


CARTRIDGE FILTER



HOUSING









Ion Exchange Process

Water Recycling Treatment Solutions

Industrial Waste Water Recycling Process

Wastewater Treatment Solutions, Water Recycling Treatment Solutions



Municipalities & Townships Waste Water Recycling Process

Wastewater Treatment Solutions, Water Recycling Treatment Solutions





Electro Chlorination

Water Recycling Treatment Solutions, Water Treatment Solutions



Electrodeionization

Water Recycling Treatment Solutions, Water Treatment Solutions



Demineraliser Series

Water Recycling Treatment Solutions, Water Treatment Solutions

KEY PROJECT STATUS - TSEPC

CONSTRUCTION WASTE WATER TREATMENT PLANT - PALEMBANG PALEMBANG SEWERAGE TREATMENT – CAP ; 20,000MPD

WEEKLY PROGRESS : 95,8%

Performance Test Phase



KEY PROJECT STATUS - TSEPC

CONSTRUCTION WASTE WATER TREATMENT PLANT - JAMBI JAMBI WWTP B1 – CAP ; 7600MPD



WEEKLY PROGRESS : 85,4%

Preparation for T&C



KEY PROJECT STATUS - TSEPC

CONSTRUCTION WASTE WATER TREATMENT PLANT - MAKASAR MAKASAR WWTP B1 – CAP ; 16000MPD



Preparation for T&C



KEY PROJECT STATUS – RUOT

CONSTRUCTION WATER TREATMENT PLANT PEKAN BARU PEKAN BARU RUOT SPAM PKU – CAP ; 750 LPS



PT PP TIRTA MADANI



PT BEMACO REKAPRIMA
ENGINEERING AND MANAGEMENT CONSULTANT



MEMIONTEC
Membrane Ionexchange Technology

WEEKLY PROGRESS : 97,2%

Preparation for Handover

During Rehabilitation works

kept selling water to PDAM with cap.
up to 280 Lps

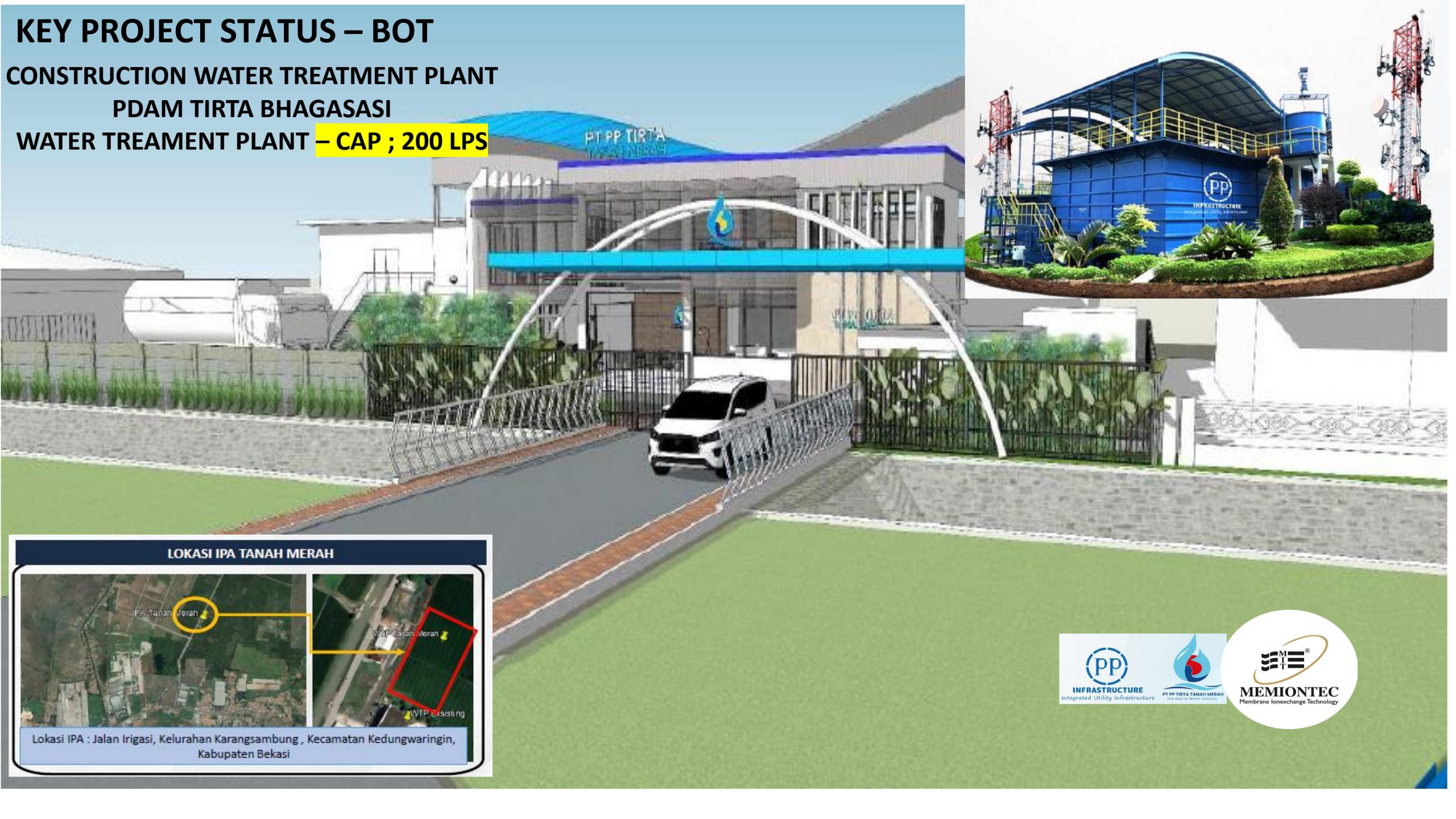


KEY PROJECT STATUS – BOT

CONSTRUCTION WATER TREATMENT PLANT

PDAM TIRTA BHAGASASI

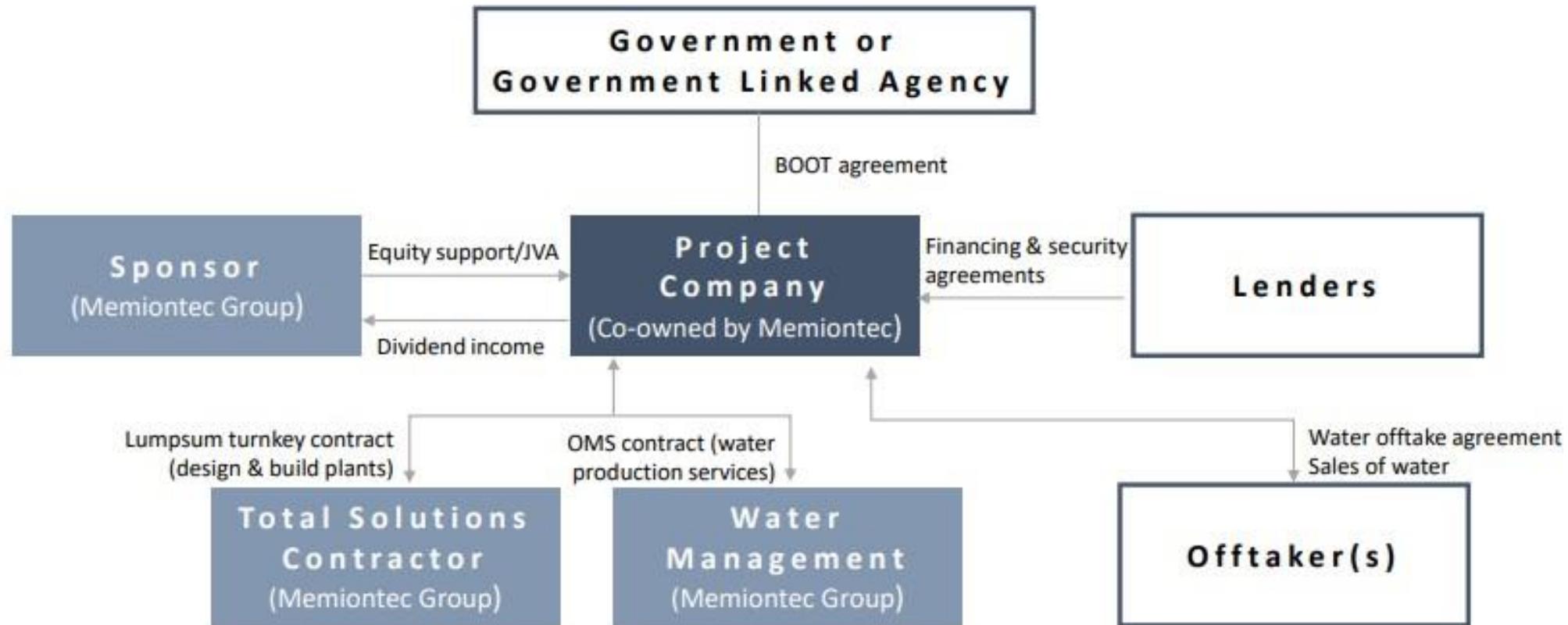
WATER TREATMENT PLANT – CAP ; 200 LPS



LOKASI IPA TANAH MERAH



INVEST IN MORE TOOT & BOOT PROJECTS

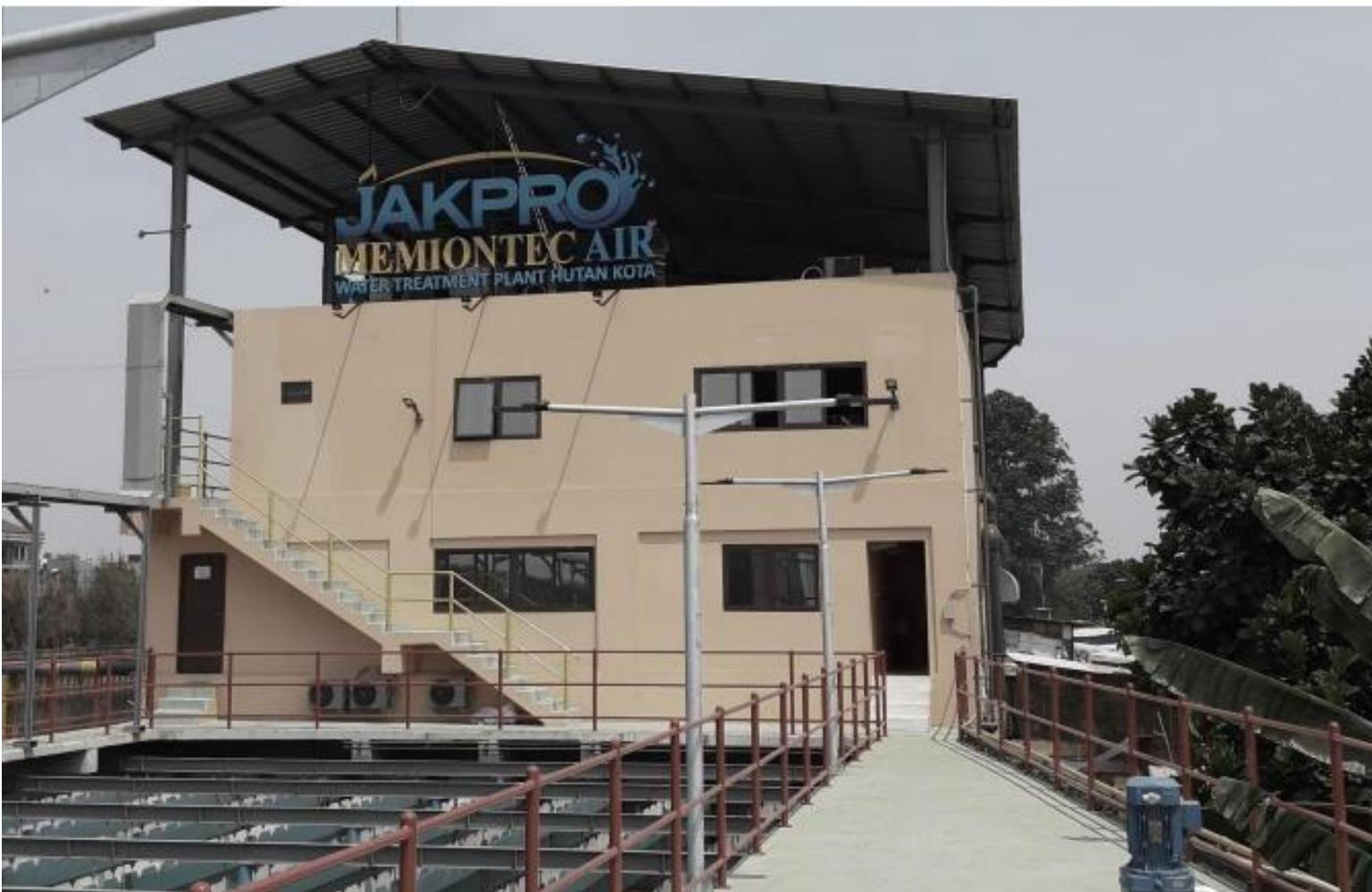


PPP INFRASTRUCTURE PROJECTS: ALLOW VALUE CREATION VIA BOOT BUSINESS MODEL FOR SUSTAINABLE INCOMES

- **Design and Develop** water or wastewater treatment plants; **Own and Operate** assets through our subsidiaries
- **In partnership** with big corporations and municipal agencies for the entire concession period of long tenure
- **Sustainable income** through strategic role in key elements of the BOOT model

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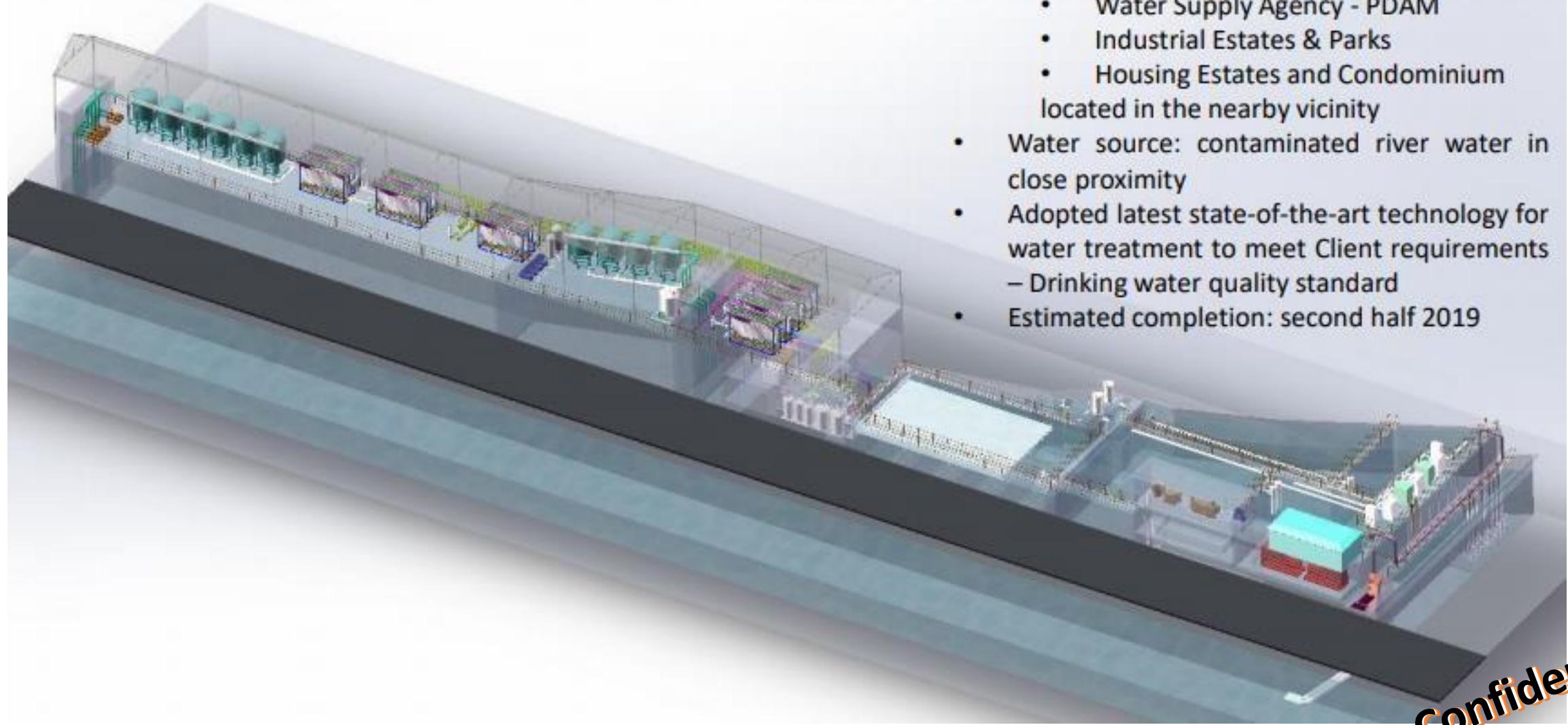
OUR BOOT PROJECT, JAKARTA INDONESIA (BUILD-OWN-OPERATE-TRANSFER)



- Location: Hutan Kota, Jakarta
- Construction completed: August 2019
- Our Interest: 40% (PT JUP: 60%)
- Concessionary period: 20 + 5 years from 2019
- Water selling price: Subject to adjustment every 2 years
- Sales of water: Since December 2019

- Capacity: 500 litres/second (43,200 m³/d)
- Serves customers located in the nearby vicinity via Water Supply Agency, PDAM
- Water source: Contaminated river water located in close proximity

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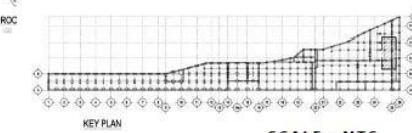
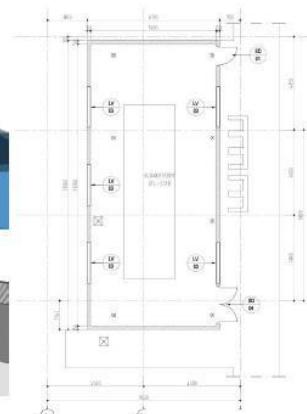
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EXTERIOR

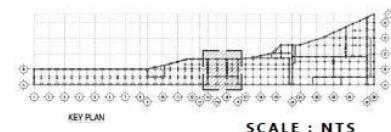


BLOWER ROOM

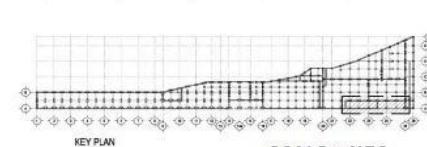
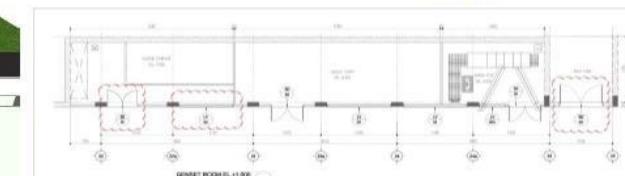


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SECTION PLAN
OFFICE WTP



DEWATERING/
GENSET



4

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PHOTO PROJECT REFERENCE

PT JAKPRO MEMIONTEC AIR

Capacity : 500 LPS

System : Auto Screen + MBBR + Aeration + Clarifier + UF + ACF

Location : Jakarta

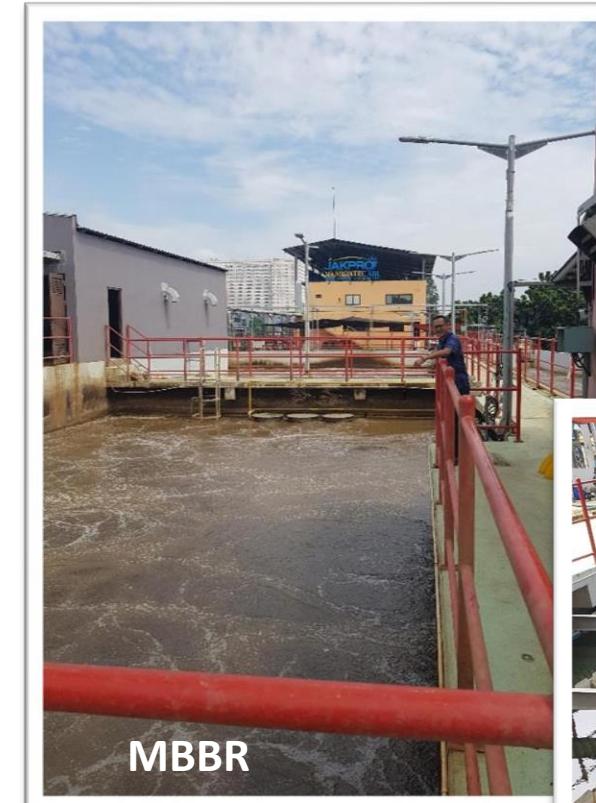
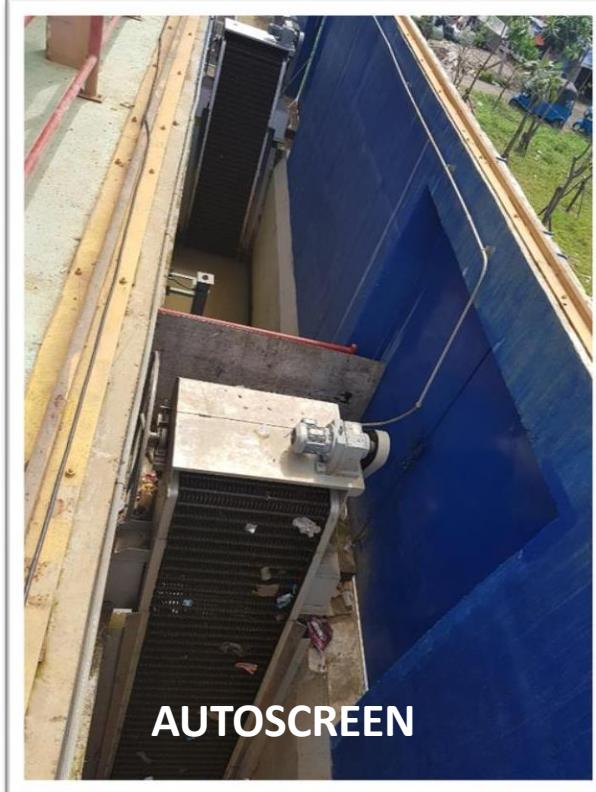


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Cap : 500 LPS

System : Auto Screen + MBBR + Aeration + Clarifier + UF + ACF

Location : Jakarta



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Capacity : 500 LPS

System : Auto Screen + MBBR + Aeration + Clarifier + UF + ACF

Location : Jakarta



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Project : Taman Imam Bonjol
Lippo KARAWACI

Capacity : 50 LPS

System : Intake System + Piping distribution
(3km) + Clarifier + Gravity Sand Filter

Location : Tangerang



LIPPO GROUP

Confidential

Project : Energi Mas Sejahtera
Sinarmas Group

Cap : 600 LPS

System : Pre-Treatment + SWRO + Mixbed

Location : Dumai (Sumatra)



12 Okt 2016 Confidential

Project : PT HINDOLI – Cargill Group



Cap : 10 m³/hour x 3 plant

System : Clarifier + Multi Media Filter + Storage Tank

Location : Jambi - Sumatra

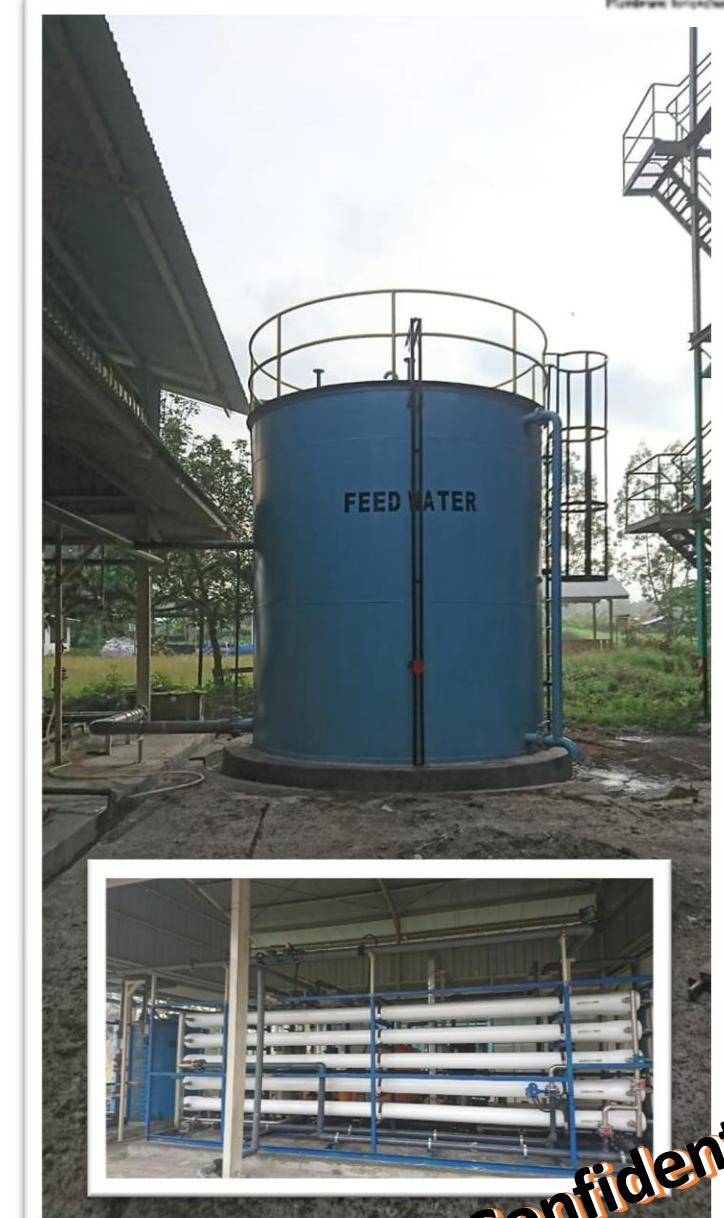
Cargill®
PT. Hindoli

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Cap : 45 m³/Hours

System : Reverse Osmosis System

Location : Kasuari Mill - Papua



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Project : LOTTE TIRED

Cap : 2X50 m3/Hours

System : Reverse Osmosis System

Location : Cikarang



LOTTE
HOTELS & RESORTS



RO SYSTEM FOR BUILDING WATER UTILITY

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Project : PT AGRIJAYA PRIMA SUKSES (SLAUGHTERHOUSE)

Cap : WWTP 250 m3/Day

System : MBBR System (MixBed Bio Reactor)

Location : Subang



PT. Agrijaya
Agribusiness • Contractor • Trading



Confidential

Project : PT INDOLAKTO

Cap : WWTP 550 m³/Day

System : BIOLOGICAL
EXTENDED AERATION System

Location : Pandaan – East Java

PT. INDOLAKTO



Confidential

Project : POWER PLANT – TANJUNG SELOR



Cap : Pure Water 70LPS

System : Reverse Osmosis + Mix Bed

Location : North of Kalimantan



PLN



Confidential

Project : WTP Mookervart - Pesakih

WATER REUSE CLEAN WATER SUPPLY

Cap : Pure Water 10 LPS

System : MBBR system +
Ultrafiltration + Reverse Osmosis

Owner : PAM Jaya

Location : Daan Mogot - West Jakarta



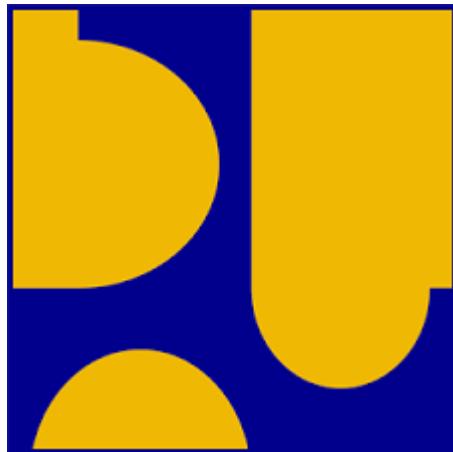
Project : SPAM KSPN Mandalika

Cap : Drinking Water Cap. 50 Lps

System : High Rate Clarifier System

Owner : Minister of Public Works & Human Settlement

Location : Mandalika – West Nusa Tenggara



OUR TOOT PROJECT, JAKARTA INDONESIA (TRANSFER-OWN-OPERATE-TRANSFER)

Capacity 2500m³/day



- Location: Waduk Pluit, Jakarta
- Upgrading completed: 2018
- Our Interest: 40% (PT JUP: 60%)
- Capacity: up to 2,500 m³/day

- Concession period: 25 yrs from 2018
- Sales of water: Since November 2018

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Published Project References



Progres Pembangunan IPAL Sei Selayur |

Liputan 6 Palembang

Liputan 6 Palembang, 6 Februari 2023 Part

[youtube.com](https://www.youtube.com)

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TRACK RECORDS @ SINGAPORE

MEMIONTEC'S EXTENSIVE WORKS WITH PUB



MEMIONTEC
Membrane Ionexchange Technology

KNF – Kranji NEWater Factory

BWW – Bedok Water Work

CCKWW – Choa Chu Kang Water Work

WLWW – Woodleigh Water Work

TSDP – Tuas South Desalination Plant

CWRP – Changi Water Reclamation Plant

JWRP – Jurong Water Reclamation Plant

JISTP – Jurong Island Sewage Treatment Plant

SL – Semakau Landfill

DTSS2 – Deep Tunnel Sewerage System 2



ALAYSIA



BWW-CCT (1600LPS)



BWW-ECS (1600LPS)



TSDP – UF (8800LPS)



TSDP



CCKWW



WLWW



BWW



CWRP



CWRP-HRC (2300LPS)



JWRP – MBR (787 LPS)



JISTP



SL – WWTP (208 LPS)



0 2 4 6 km
0 2 4 6 mi



WLWW-Post Treatment (2300 LPS)



Str



WRP – Water Reclamation Plant



WSP – Water Supply Plant



On-Going Project

INDONESIA

TSDP – UF SYSTEM



MEMIONTEC
Membrane Ionexchange Technology

Title: Membranes Filtration System (MFS) at Tuas South Desalination Plant

Completion: 2021

Capacity: 760MLD (8800 LPS) – UF, 318MLD (3680LPS) – RO product

Technology: Screen – Intake Pump – Disc Filter – Ultrafiltration (UF) – UF filtrate tank – 1st Pass SWRO HP Pump – 1st Pass SWRO – 2nd Pass BWRO HP Pump – 2nd Pass BWRO – Mineralisation – Chlorination – RO product Tank – Distribution Pump

The biggest Desalination Plant in Asia



NEA – FLOATING WWTP, SEMAKAU LANDFILL



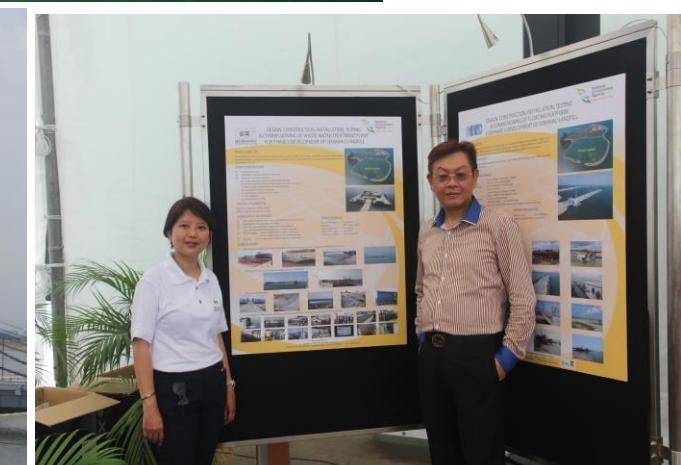
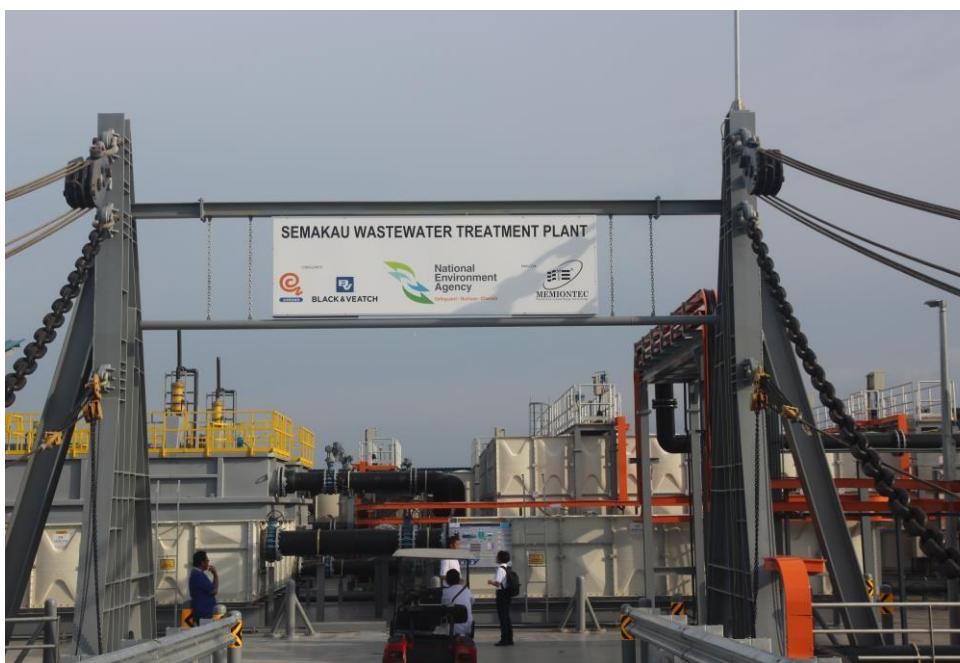
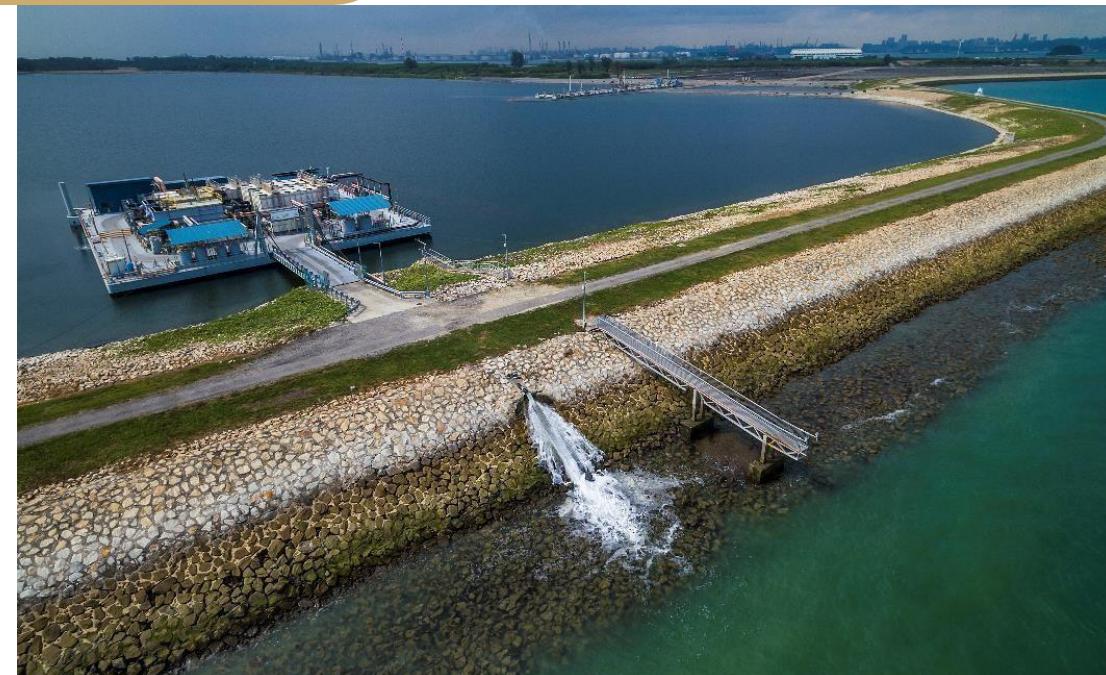
Title: Design & Build Floating WWTP at Semakau Landfill

Completion: 2015

Capacity: 18MLD (208LPS)

Technology: Intake Pump – Chemical & Physical Treatment– High Rate Contact Clarifier – Flocculation Tank – Disc Filter – Discharge Pump including Water Maker (SWRO) and Power Generation System.

- **This is a green and energy efficient system, there are only 2 sets of intake pumps and the treated water discharge pumps for the entire plant.**
- **Obtained International Engineering Award 2019 and IES-SG50 (Institution of Engineers Singapore) 2016.**



JWRP – MBR SYSTEM

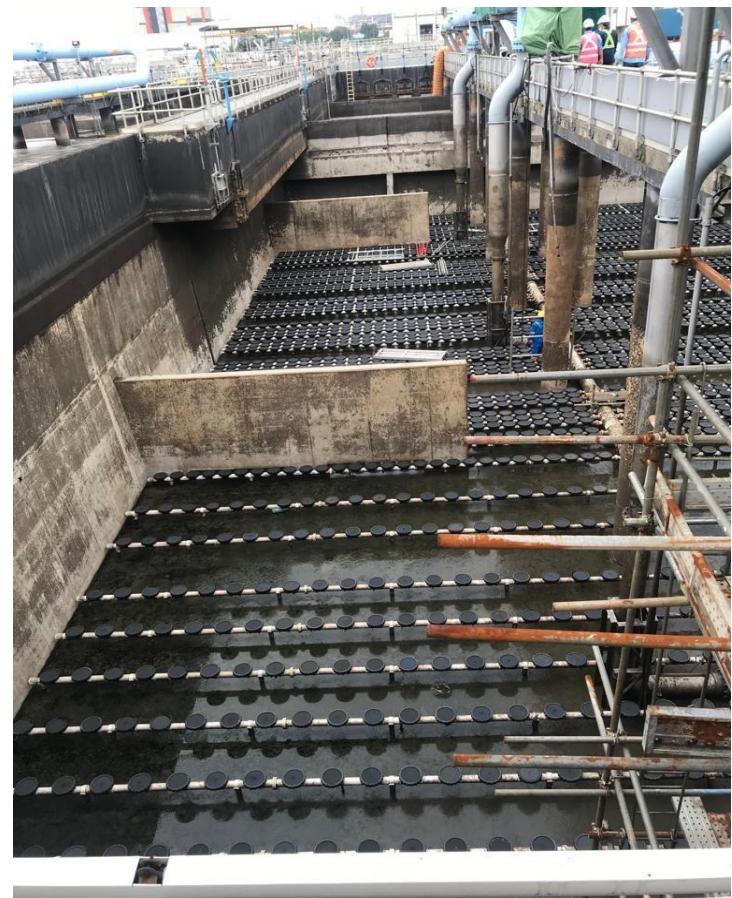
Title: Membrane Bioreactor (MBR) System at Jurong Water Reclamation Plant

Completion: 2021

Capacity: 68MLD (787LPS)

Technology: Anoxic (denitrification) – Anaerobic – Oxic (Nitrification) –
MBR(Membrane Bioreactor) including Return Activated Sludge (RAS) & Waste
Activated Sludge (WAS)

Industrial Waste Water recycling



KNF –MF & RO SYSTEM

Title: Microfiltration (MF) & Reverse Osmosis (RO) System at Kranji NEWater Factory

Completion: 2020 & Mid 2023

Capacity: MF - 135MLD (1560 LPS), RO - 82MLD (950LPS)

Technology: Secondary Treated Influent – MF Feed Pump - Microfiltration (MF) – RO HP Pump – Reverse Osmosis (RO) – UV – Chlorination – Product Tank – Distribution Pump



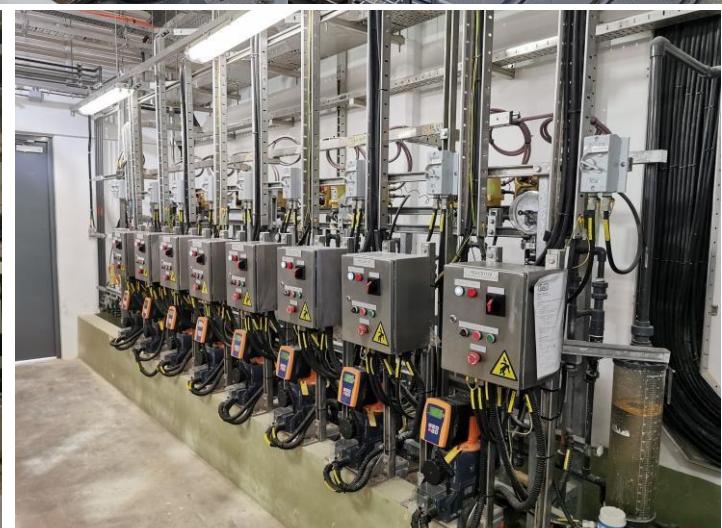
CWRP – WET WEATHER FACILITIES

Title: D&B Wet Weather Facilities at Changi Water Reclamation Plant

Completion: 2019

Capacity: 200MLD (2300 LPS)

Technology: Screening System – Rapid Mixing Tank – High Rate Clarifier – Sludge Return Microsand Ballast System – Sludge Thickening System – Chemical Dosing System



BWW –ECS SYSTEM & CCT TANK

Title: Electrochlorination (ECS) System, Chlorine Contact Tank (CCT) & Re-lift

Pumping Station at Bedok Water Work

Completion: 2017 & 2019

Capacity: 30MGD (1600 LPS)

Technology: Screening System – Intake Pumping Station – Flocculation & Coagulation – Clarification System – Rapid Sand Filter – Chlorine Contact Tank – Distribution Pumping Station including Chemical Dosing and Electrochlorination



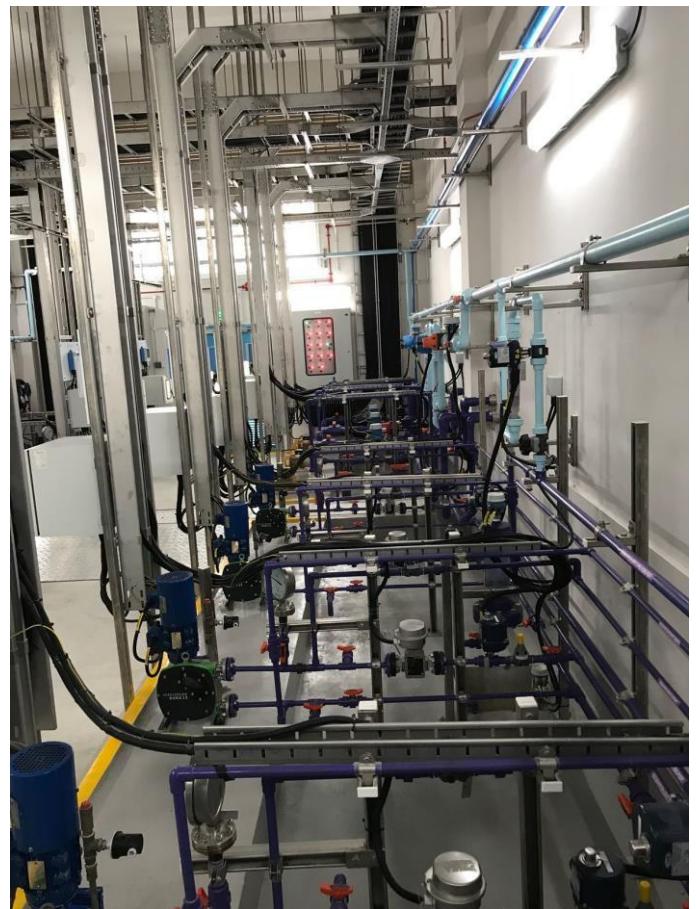
WLWW – POST TREATMENT SYSTEM

Title: Post Treatment System - Sodium Hypochlorite and Ammonium Sulphate Dosing System at Woodleigh Water Work

Completion: 2019

Capacity: **200MLD (2300 LPS)**

Technology: Screening system – Intake Pumping station – Flocculation & Coagulation – Clarification system – Rapid Sand Filter – Pumping Station including Chemical Dosing



DTSS2 – OCF & AJ FACILITIES

Title: Odour Control & Air Jumpers Facilities at Deep Tunnel Sewerage System 2 (DTSS 2)

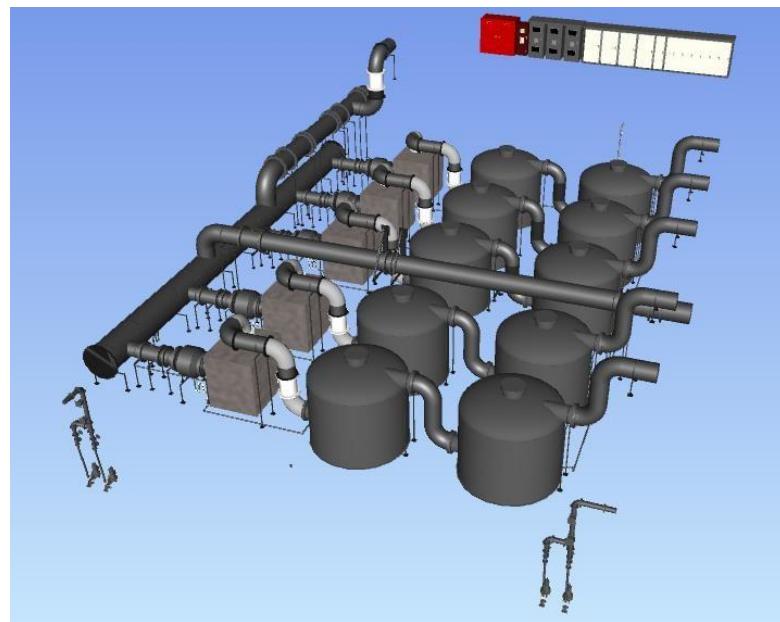
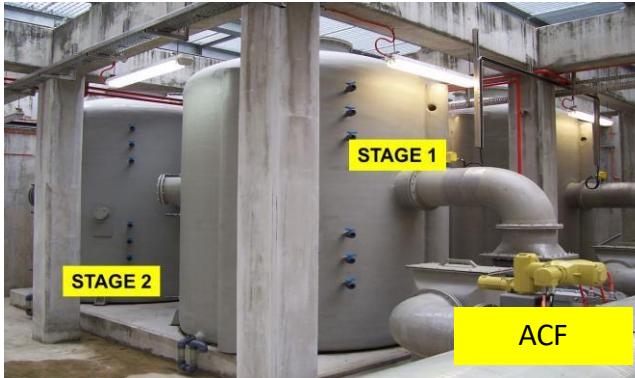
Completion: 2024 (on-going)

Capacity: 13 Chambers. Each from 1500m³/hr to 50,000m³/hr

Technology: Extraction Fan –Double Stage Activated Carbon Filter - Dampeners



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THANK YOU

Q&A SESSION

Further info please contact :
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