インドネシア水インフラセミナー配付資料②

Sustainable Sewerage Management for Indonesia

Swing Corporation

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Agenda

- Company Overview 1.
- Valuable Services
- 3. **About Swing**
- 4. Overseas Track Records
- 5. About PT. Swing Indonesia =Swing activity in your country=
- Technologies 'Wastes change to valuables' 6.
- KOBE Harvest Project =Phosphorus removal= 7.
- Mizu-Mirai Hiroshima =First PPP Works in Japan= 8.



Company Overview



=History of Swing Corporation=

- ■1912 Inokuchi Type Machinery Office founded by Issei Hatakeyama
- ■1920 EBARA Corporation established
- ■1956 EBARA-INFILCO established with INFILCO Inc(USA)
- ■1994 EBARA-INFILCO was merged into EBARA Corporation
- ■2009 All EBARA's water related business unit integrated to Ebara Engineering Service (EES)
- ■2010 Mitsubishi and JGC joined EES
- ■2011 EES has a new name `Swing Corporation` as of April 1
- **Company Name** Swing Corporation
- Turnover (Non-Consolidated) US\$741 million (FY2012)
- **Number of Employees** 3,148 (as of April 1, 2013)
- **Main Customers** The National Government, Municipalities, and **Private Companies**

April 1, 2011



Our corporate name implies <u>Sustainable</u> <u>Water + ing, in which "ing" intends</u> continuing action for further improvement of the water environment.

XOfficially succeeded all the past EBARA's water business track records

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Valuable Services

Abundant experience and accumulated technologies for Water treatment business



Drinking Water **Treatment** (WTP)

Wastewater Treatment (WWTP)



Industrial Water **Treatment**

Water Treatment **Business**

Biomass (Methane Fermentation Composting)

Industrial Treatment

Leachate **Treatment**

Night soil **Treatment**



Wastewater





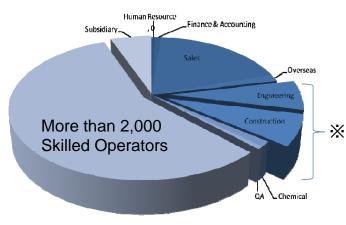


Swing - Over 2,000 Operators, 50 R&D staffs & 450 engineers

Abundant experience in EPC and O&M

Accumulated know-how and network

Well developed emergency operation (flood, earthquake)



XMore than 500 R&D Staffs and Process/Construction Engineers

Fujisawa R&D Center

- 1. R&D
- 2. Support for Consultation & Design
- 3. Water Analysis

: all round of water related



Sodegaura Chemical Factory / R&D Center

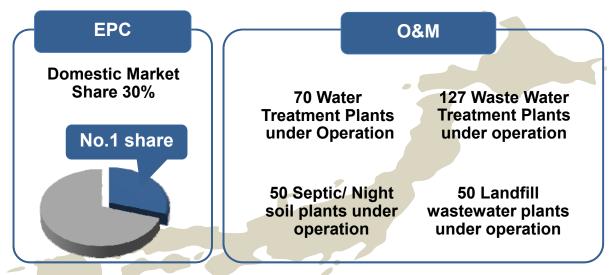
- 1. Manufacture
 - : Regenerate Activated Carbon, Various Chemical Series
- 2. R&D
- 3. Analysis
- : all round of Chemicals for water treatment related



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Swing - Domestic EPC and O&M Experience

Swing is market leader for EPC and O&M in Japan and has plentiful experience abroad.

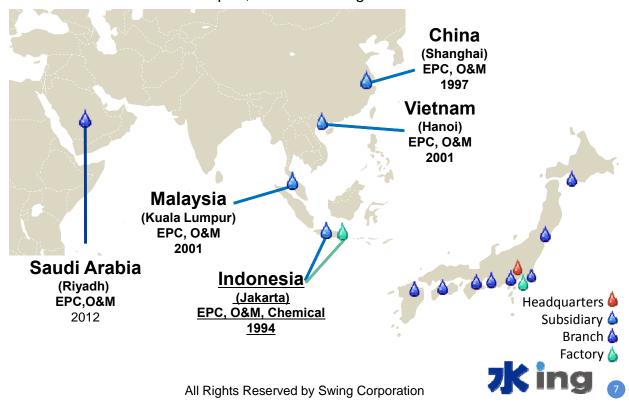


(in Public Water Treatment Sector)



Swing Network

SWING has 9 branches in Japan, and is focusing on Asia and Middle East market.



Swing Overseas Track Records



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Introduction of Swing activity in Indonesia

PT. Swing Indonesia (former Name : PT. Ebara Prima Indonesia)

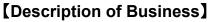
[Est.] December, 1994

[Address] **HQ & Activated Carbon Factory**

: Kawasan Industri Modern Cikande. Jl. Modern Industri 1 No.12 Cikande, Serang, Banten 42186, Indonesia

Engineering Office

: Jl. Jalur Sutera Blok B29 No.41 Alam Sutera, Tangerang 15413, Indonesia



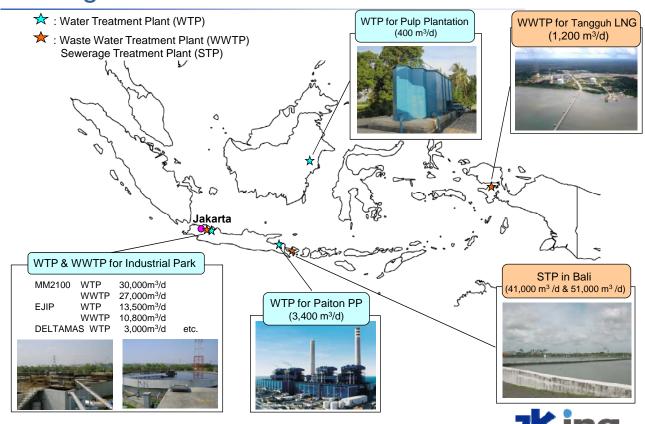
- 1). Water Business: Consultation, EPC, O&M for all kinds of water related industry
- 2). Manufacturing & Sales: Activated Carbon, Chemical for Boiler & Cooling tower

[Number of Employees] 80 (as at the end of 2013)

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Swing - Track Records in Indonesia



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Swing - Track Records Sewerage treatment Plant in Indonesia (1)

Bali/ Denpasar Sewerage Development Project

- Phase (I)

Capacity: 41,000 m³/day Completion: March 2005

- Phase (II)

Capacity: 51,000 m3/day Completion: March 2011



< Treatment Process >



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Swing - Track Records Sewerage treatment Plant in Indonesia (2)

A. EPC of Total 5 Sewerage Treatment Plants

for Senayan Square

- -STP for Residential Area:
 - -150 m3/day x 1
- -STP for Shopping Area:
 - -500 m3/day x 1 & 1040 m3/day x 1
- -STP for Office Buildings:
 - -600 m3/day x 1

Treatment Method:

- (a) Activated sludge treatment with deodorizing unit
- (b) Membrane Bioreactor Systems

B. Operation & Maintenance of all Sewage Treatment Plants in Senayan Square

- -Daily operation for 24h x 7days/week
- -12 Operators
- -Total Capacity of 3,500 m3/day
- -Regular maintenance













Swing - Water Environment Improvement & Task

- 1. Protection of Raw Water Sources
- 2. Water Environment Improvement in Greater Area
 - → Sewerage Treatment Plant Increase

Sludge Volume Increase

What is real task?



Provision for Environment

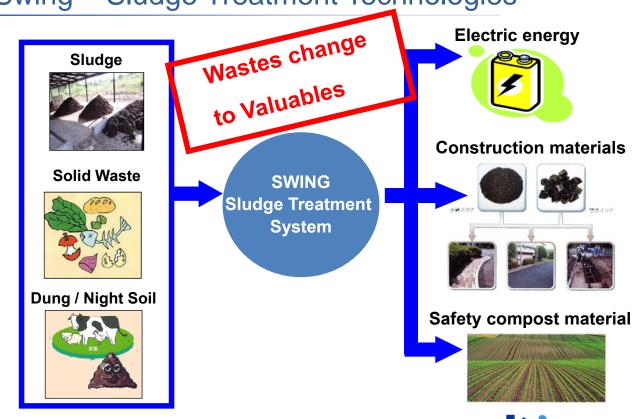
→ Wastes change to Valuables

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Swing – Sludge Treatment Technologies



Methane Fermentation System

Multiple Recycling System of Sewerage Sludge and Industrial Organic Waste in KUROBE CITY



Delivered in 2011 [80m3/day]

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Overview of Methane Fermentation Plant



Advantages for Each Stake Holders

Local Government

- Sludge Discharge Reduced by 60%
 - ⇒ Effective Utilization (Alternative Coal, Fertilizer)
- Fuel for Sludge Drying Unnecessary
- Supplements Electricity Supply for WWTP by 10%

Regional Contribution

Foot Bath Facility (Several Hundreds of Visitors per Month)

Private Factory

Reduced Disposal Cost

♣ Biomass Power Plant

Available Alternative Fuel

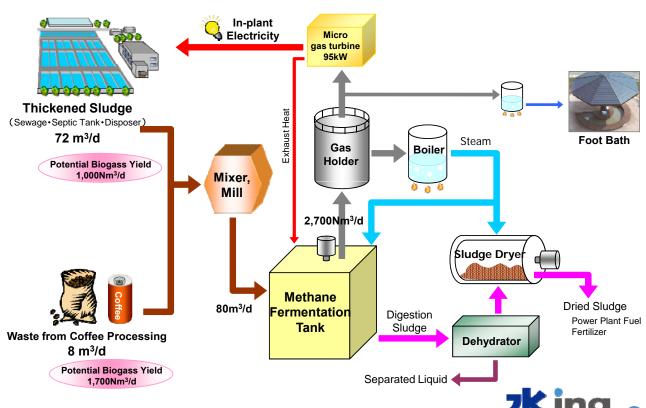




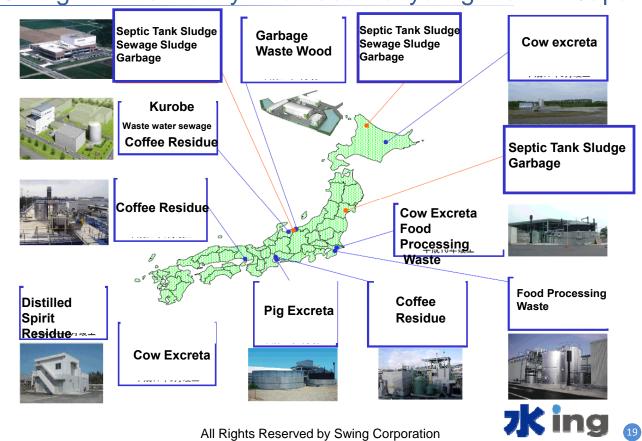


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System Configuration



Swing - Trustworthy Biomass Recycling Plant in Japan



KOBE Harvest Project - Harvest rich resources from Sewerage

Industry – Government collaboration Project supported by Ministry of Land, Infrastructure, Transport and Tourism





Harvest rich resources from sewerage

Phosphorus recovery from sewerage

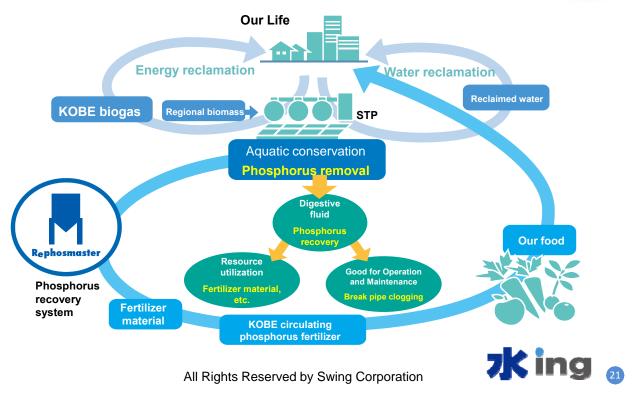




KOBE Harvest Project - Protect environment by phosphorus recovery from sewerage

Industry – Government collaboration Project supported by Ministry of Land, Infrastructure, Transport and Tourism





KOBE Harvest Project -Structures / Industry - Government collaboration

Industry – Government collaboration Project supported by Ministry of Land, Infrastructure, Transport and Tourism





Swing Corporation
Remove and
Recover system

KOBE city
Providing sewage plant
Considering the use of
Recycled fertilizer

Mitsubishi Shoji
Agri-Service Corporation
Considering the value of
Recycled fertilizer

Establishing a resource recycling system and diffuse departure through industry-government collaboration.



Track Record - Japan's First PPP Entity

Track Record

The Hiroshima Prefectural Government

- -Stabilize business foundation
- -Reinforce technology
- -Prepare for dilapidated facilities/emergency

Swing Corporation

- -Acquire the long-term asset management skill
- -Improve Assent management capability

35%

65%

Japan's First water supply service led by private sector Mizu Mirai Hiroshima



PPP

- Operation, management, and maintenance of water supply facilities
- Consulting, human resource development, and training services for water business

☑Solve income reduction problem

- ⇒ Achieve economies of scale by expanding the business domain
- ⇒Develop a new revenue stream
- ☑ Solve the aging facilities 's problem
- Solve declining the number of engineers and the level of technologies
- ☑ Improve the efficiency by private sector's originality and ingenuity







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Terima kasih banyak!

Thank you very much for your attention!



Swing, a total solution provider for water and the environment



