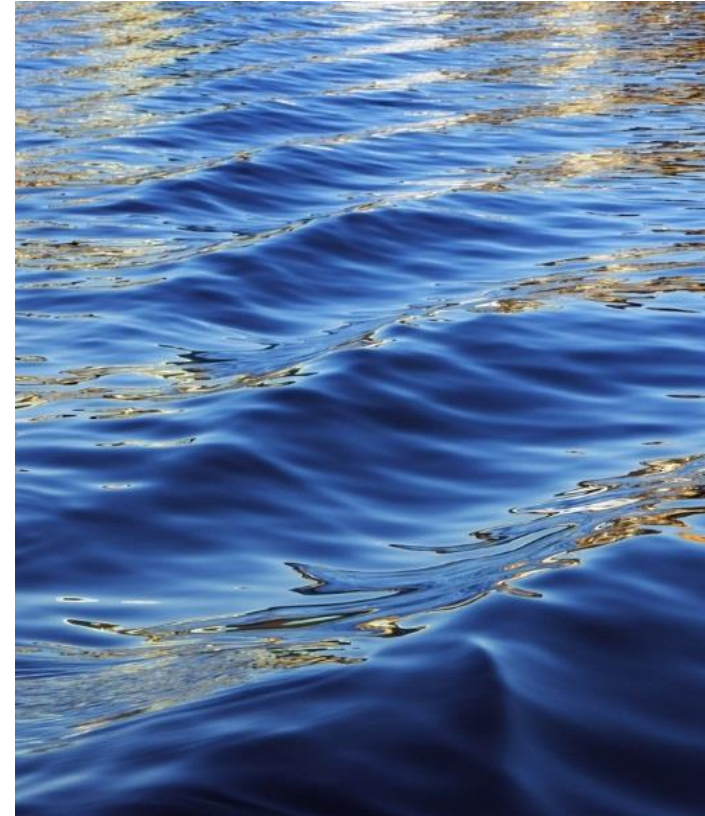


Current Status and Priorities of Waste Management in Jakarta

Promoting Bilateral Mechanisms in Asia and the
Pacific, ADB Workshop, Jakarta 22nd of May 2015



This Presentation:

- covers only aspects with High Capex Investment Opportunity
- covers only aspects of Municipal Solid Wastes (non Hazardous)
- 1 page about Acritas Energi Indonesia
- a brief summary of Waste Technology Applications
- the first BOT Landfill Project in Jakarta
- how can JCM contribute



About Acritas Energi Indonesia

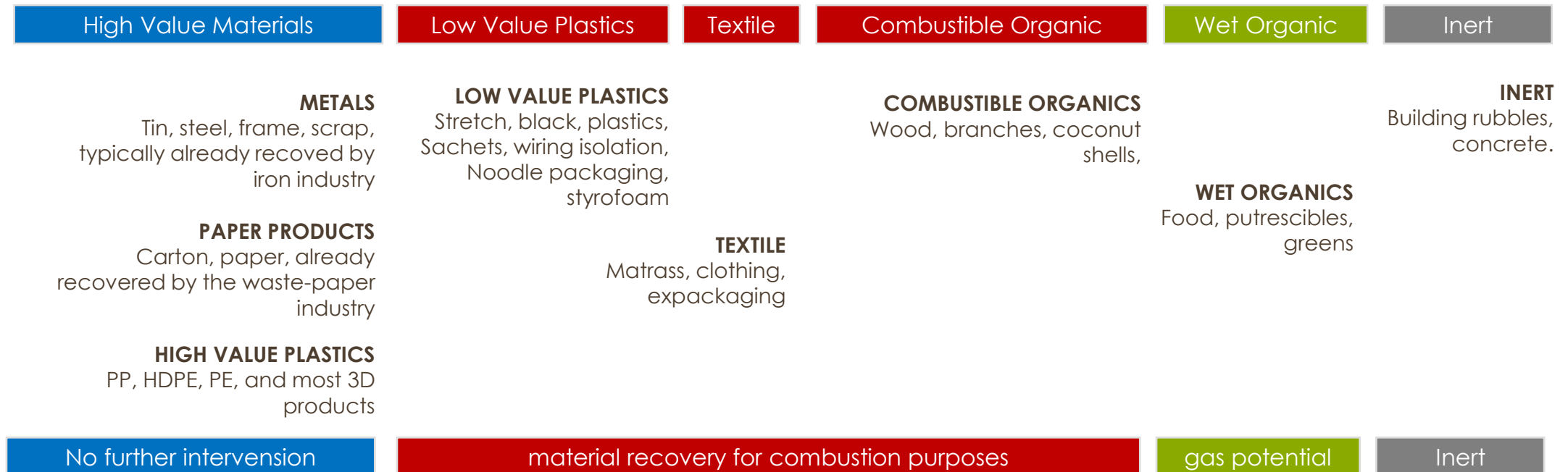
- Developer of Waste Management and Waste to Energi Project in Indonesia
 - Newly established. Manned by experienced team of ex-Navigat Organic Energi Indonesia.
- Our current development portfolios are:
 - RDF Power Plant in Bantargebang, waiting for government approval
 - RDF Production facility for Nambo, a contender in a tender process.
- Our mission is:

Acritas brought together investors, lenders, technology providers and industry experts, and strives to raise the bar of waste management operatorship in Indonesia;



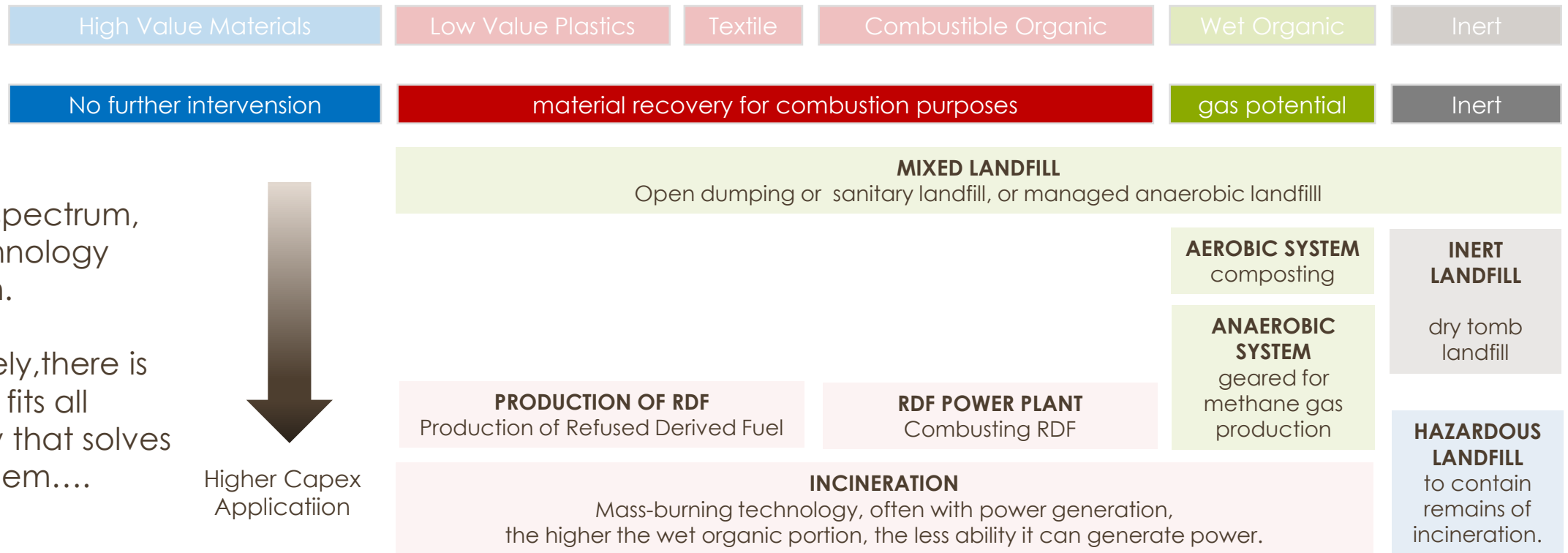
Waste Technology Applications

(in lay-men terms)



Waste Technology Applications

(in lay-men terms)

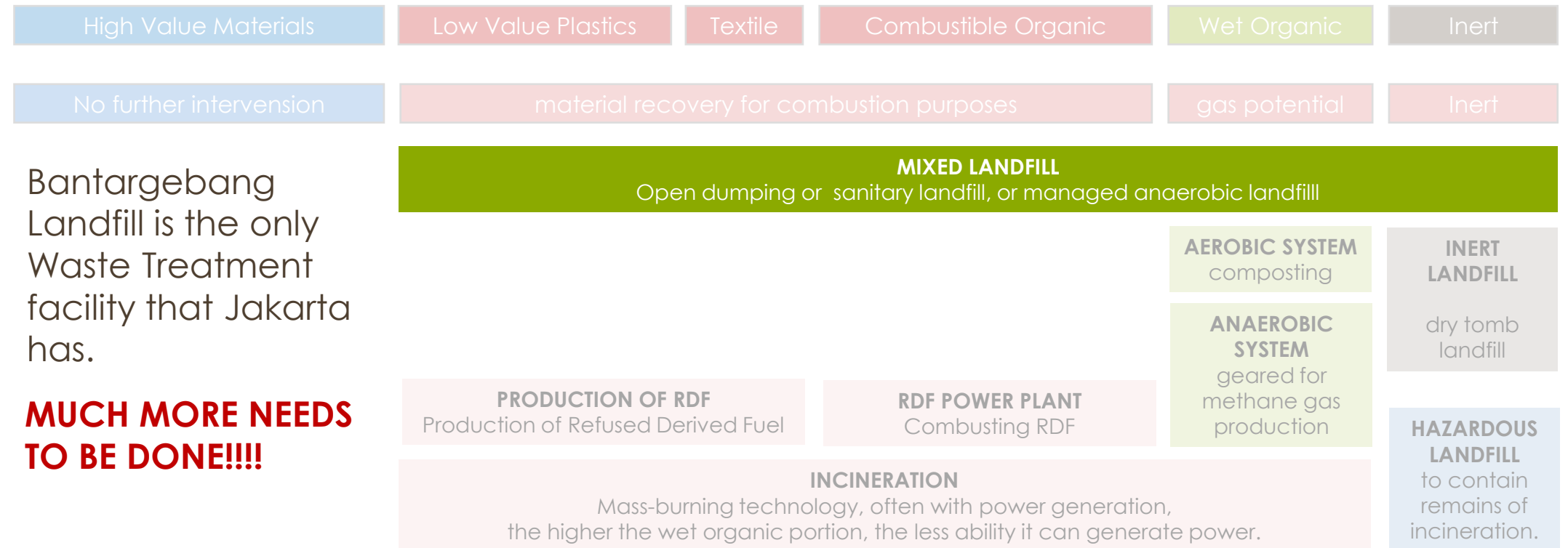


Waste is a spectrum, so is its technology application.

Unfortunately, there is no one size fits all technology that solves every problem....

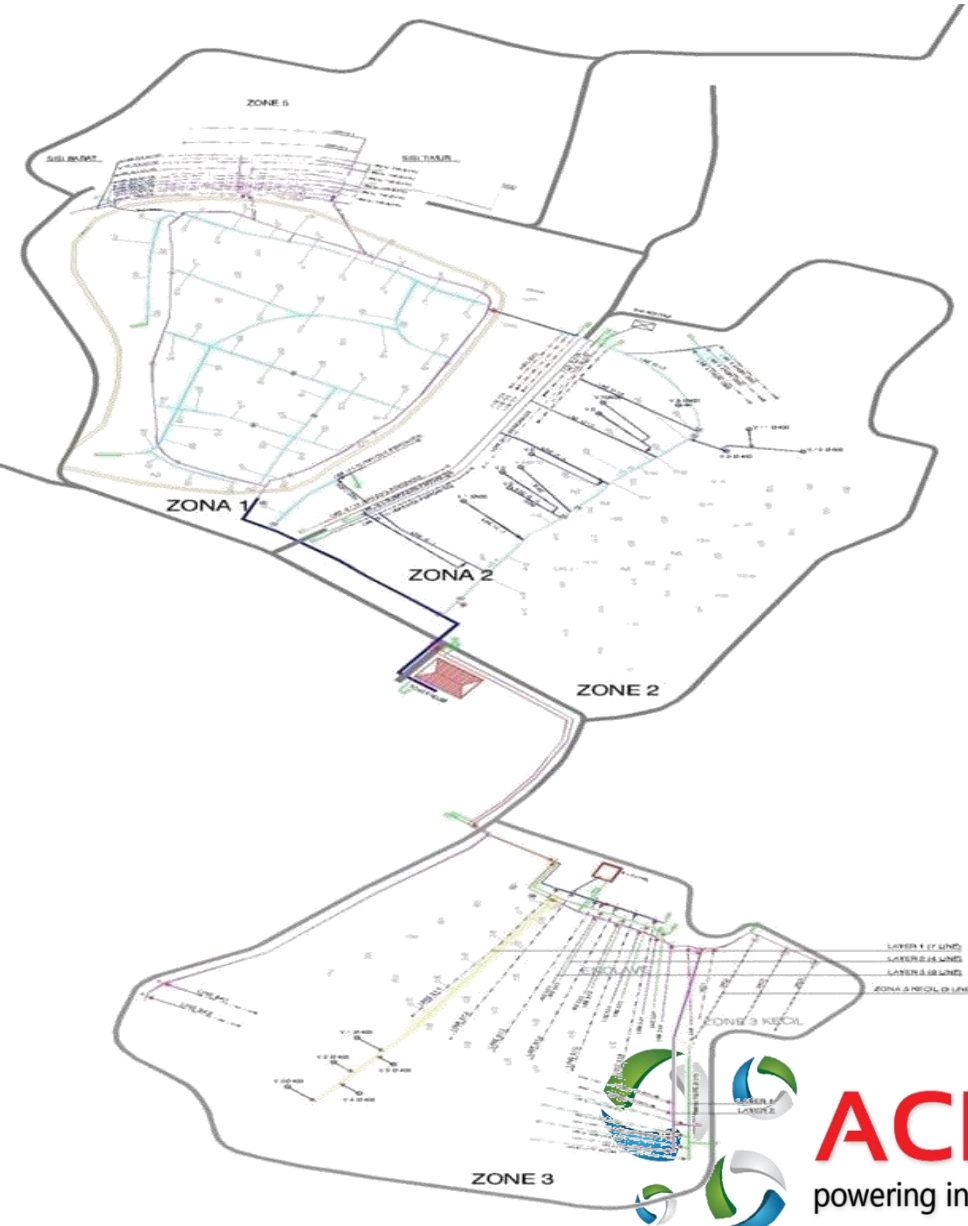
Waste Technology Applications

(in lay-men terms)



Bantargebang Landfill, East of Jakarta

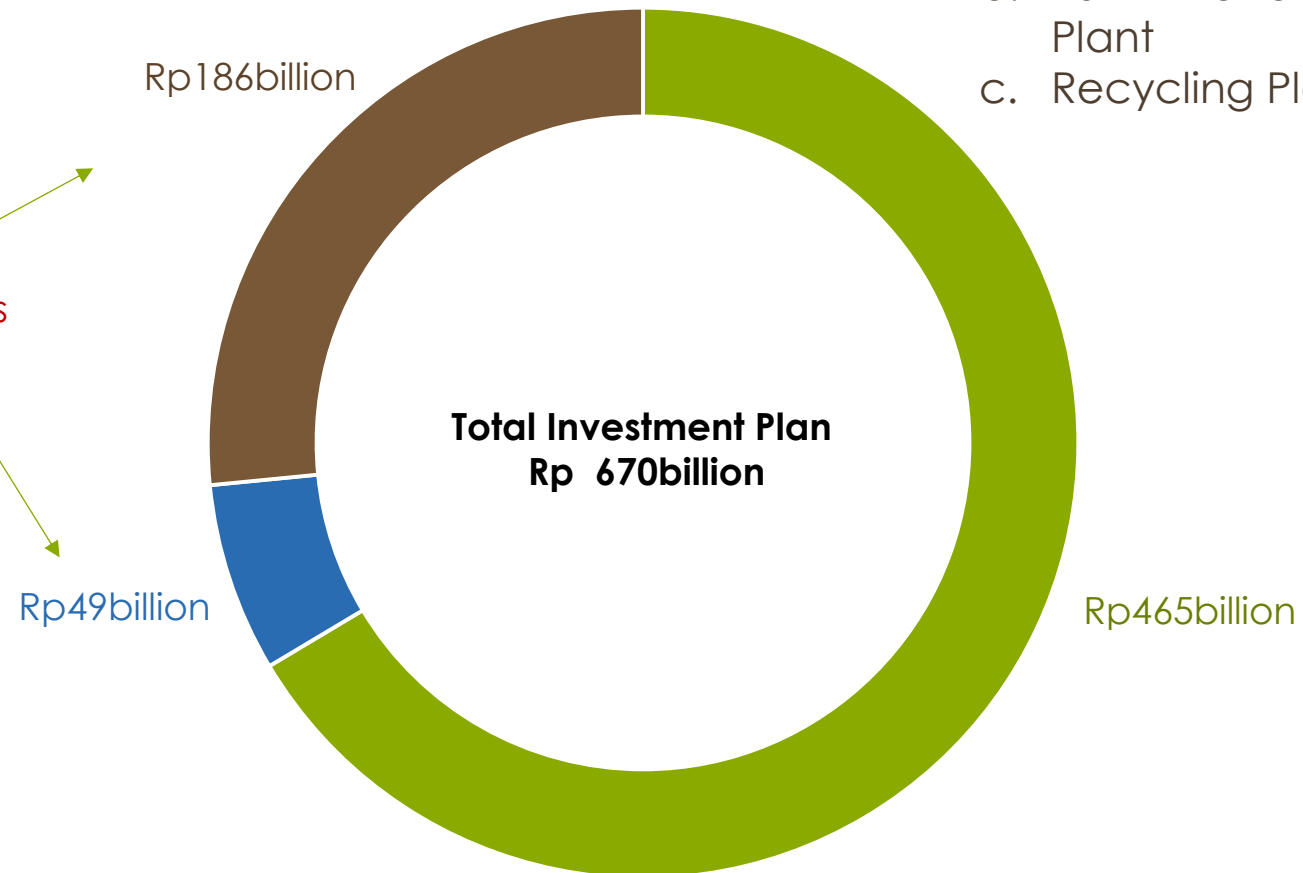
- Servicing the entire population of Jakarta covering 5 municipalities;
- Was tendered in 2008, for upgrade of facility and operation, and Rp699billion BOT investment;
- Counterparties:
 - Provincial Government of Jakarta and
 - Joint Operation between PT Godang Tua Jaya & PT Navigat Organic Energi Indonesia,
 - 15 years.
- Contract coverage
 - landfill upgrade, composting plant, material recycling plant, landfill gas power plant, and a 300tpd thermal plant



Investment Plan & Realisation

Unrealised Investment Plan

Remaining 300tpd thermal system, which is no longer relevant for 6,000tpd volume; and landfill infrastructure maintenance for 2,000tpd facility

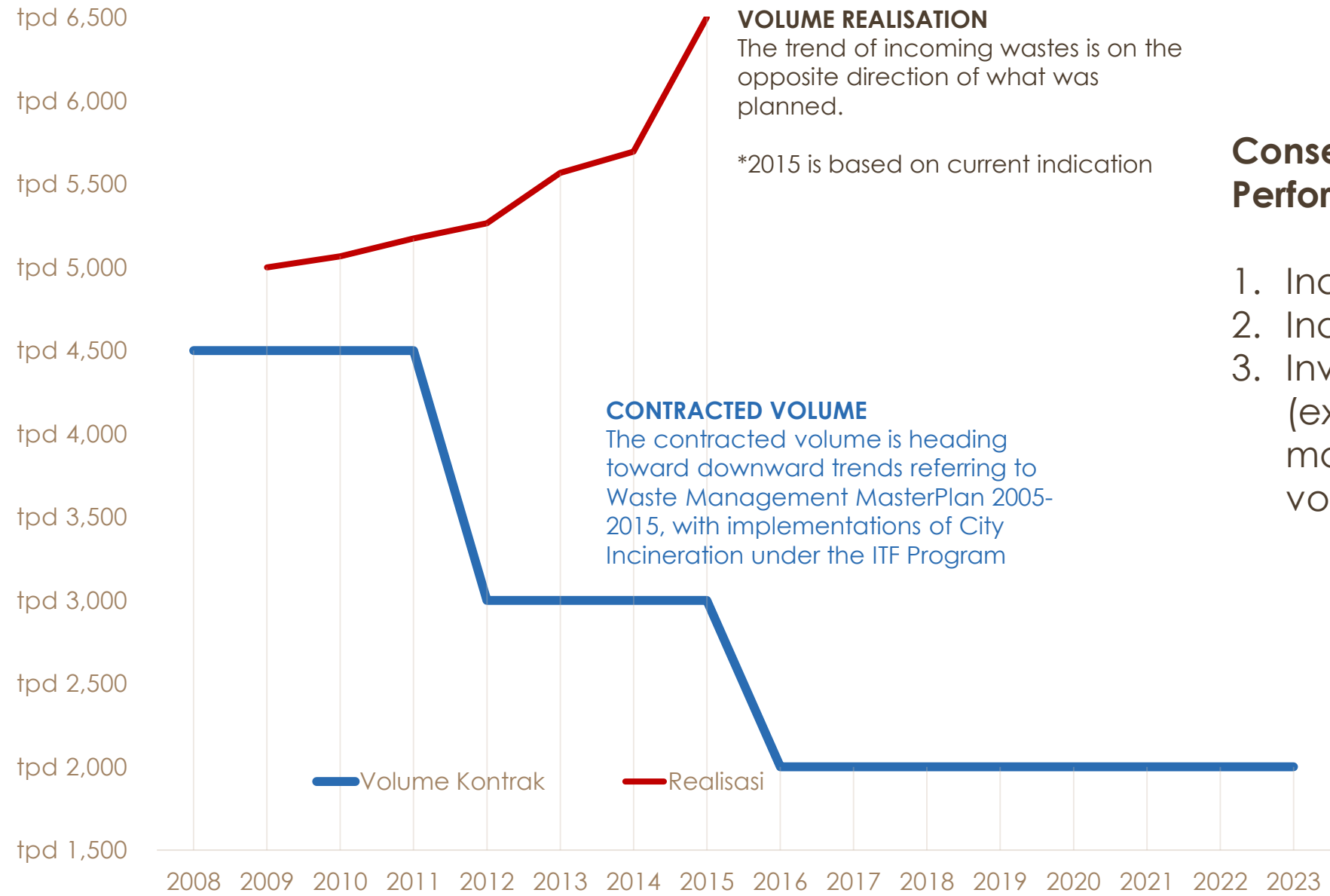


Realised Investment:

- a. Composting Facility
- b. 16MW Landfill Gas Power Plant
- c. Recycling Plant

- Realisasi Investasi Tahun 2008 - 2013
- Rencana Investasi Tahun 2014
- Sisa Rencana Investasi Tahun 2015 - 2023

Contract Volume & Realisation



Bantargebang Landfill

Consequences on Contract Performance

- 1. Inadequate Operational Plan
- 2. Inadequate Investment Plan
- 3. Investment plan in disarray (extraction of landfill gas is made difficult with the high volume)

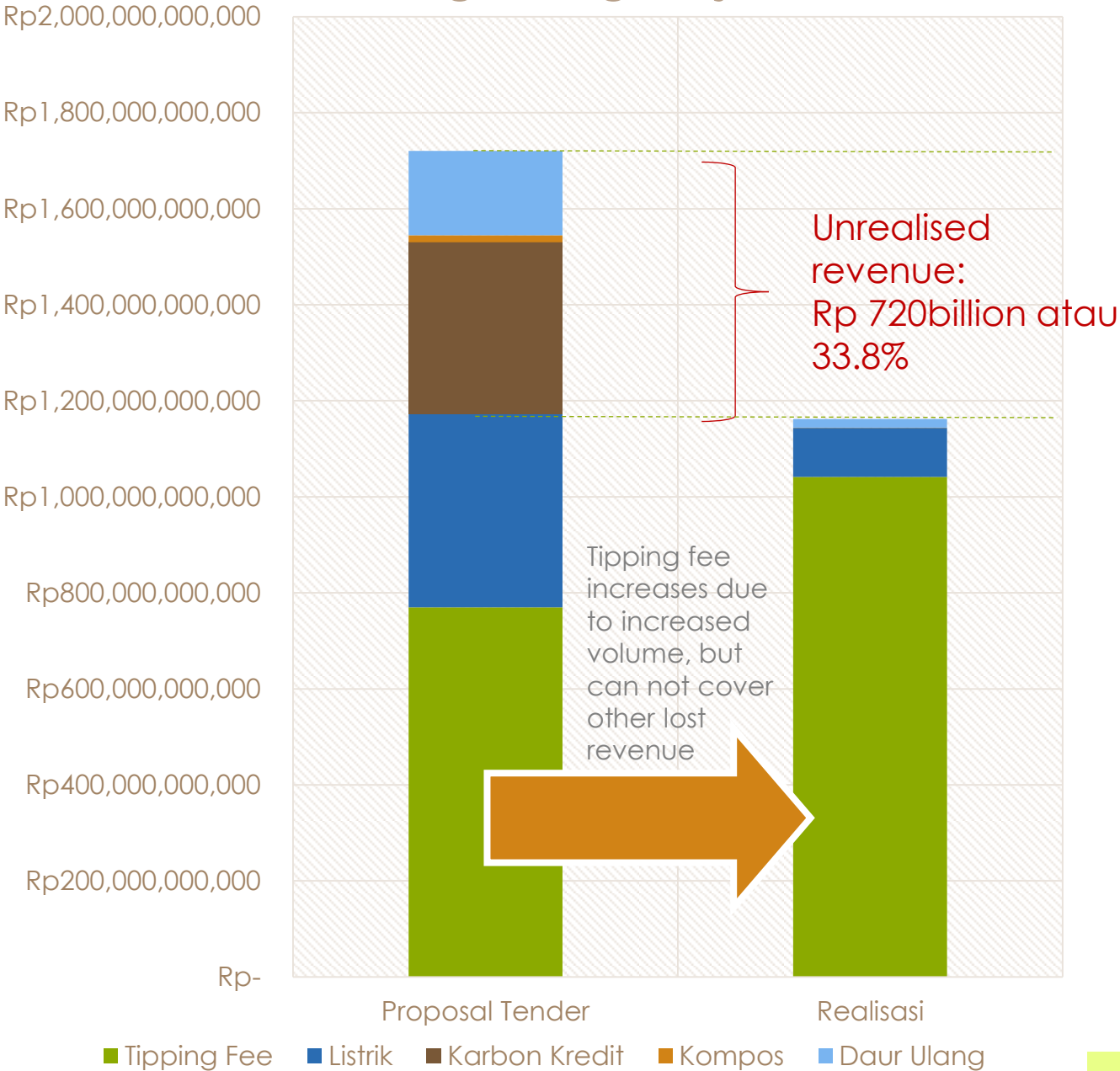


Revenue Deficit from Non-Tipping Income

Source of Project Revenue	Sales of Compost	Sales of Carbon Credit	Sales of Power	Sales of Recycleables	Tipping Revenue
Status	<p>Bantargebang generates large volume of compost which can not, yet compete against chemical fertilizer.</p> <p>Operation continues on subsidy on account to reduce wastes ending in landfill.</p>	<p>International commitment evaporates.</p> <p>The Project is registered in Nov 2012, and has certified 281,951tCO2 pre-registration.</p>	<p>Power generation is not as good as expected.</p> <p>Gas extraction is hindered by too high volume of incoming material providing no time for landfill covering necessary for gas extraction.</p>	<p>Social pressure from scavenger means that revenue from recyclables is not optimal.</p>	<p>Tipping fee is the only revenue that continue to climb.</p>

Deficit in Revenue

Planned and Realised Revenue of Bantargebang Project 2008-2014



Acritas Current Investment Plan at Bantargebang



Features:

13MW Gross Power
100% 3,600kcal/kJ of RDF
1,160tpd of MSW

Investment Value

USD42million

Project Status:

Waiting for Approval from
DKI Jakarta.

Environmental Permit is
obtained.

How can JCM assists?

- JCM is essentially can act almost like a Viability Gap Funding in a PPP Project, reducing upfront investment.
- Reduction in Capex has huge benefit to Project Finance
 - Reduced Interest During Construction
 - Reduced Borrowing Costs
 - Higher DSR and free cash flow means that project is better maintained.

How can Jakarta Benefit from JCM

- JCM can assists in the realization of City's Incineration Project under the Waste Management MasterPlan
- Reduction in Capex means the City can afford better and more reliable technology, which is more emission friendly.



Thank you

