



# EnergyBin™

***VISION: To Provide Profitable, Sustainable and Economical Decentralized  
Organic Waste Solution – EnergyBin™***

## INTRODUCTION

### About XWM

- Xeon Waste Managers (XWM) was started with a mission and vision to provide economically sustainable and state of art solutions in the field of Waste Management.
- The XWM is a team of leading expert's in field of organic waste treatment. They were associated with many other small and medium size biogas projects execution and have a collective experience of 30+ years

### XWM's philosophy behind development of EnergyBin™:

- India Generate abundant amount of Organic Waste and spend huge amount on disposal, which we as XWM think is illogical.
- XWM strongly believe that Organic waste is resource and potential to generate revenue and not to spend revenue on it.
- Through **EnergyBin™** XWM offer an advance compact, sustainable and economical NextGen organic waste treatment solution.
- Our aim is to install **EnergyBin™** at the source of waste generation and protect huge amount of public tax money spend by government on disposal of Organic waste.
- **EnergyBin™** generate ROI to the waste generator.

## FOUNDATION TEAM

- **Vishal Khalde (Founder & Director)**

Holds a degree in Chemical Engineer & Masters in Bio Chemical Engg. from TU Dortmund, Germany, with 6+ years of experience in research & development and was involved in installing more than 15 large & small scale biogas plants.

- **Srinivas Kasulla (Co-Founder & Director)**

Holds Masters Degree in Environmental Science, Mumbai University with 16+ years of experience in designing, installing & commissioning more than 60 biogas plants.

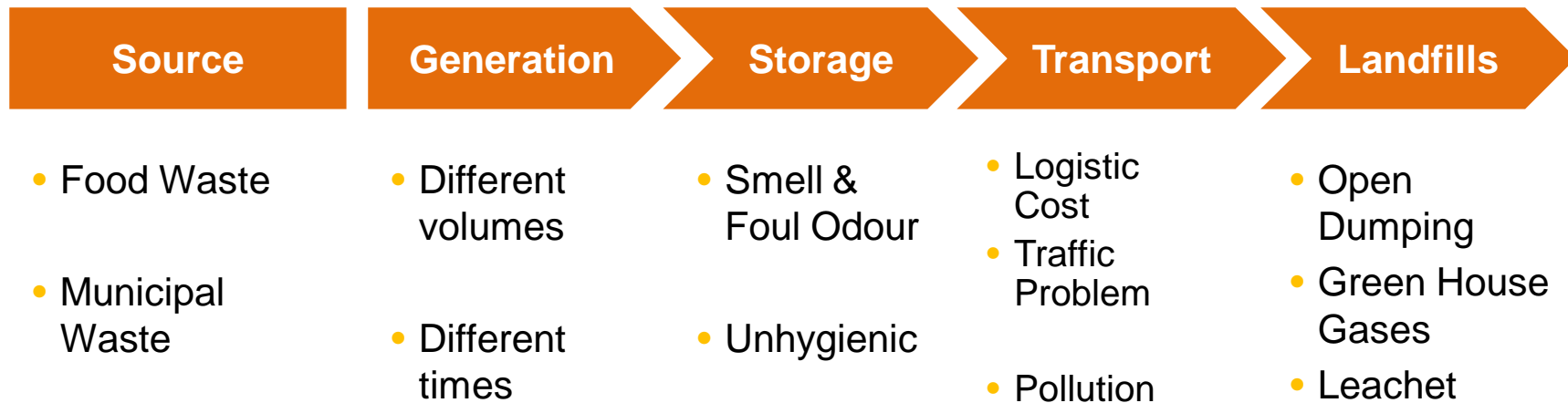
- **Amit Sawant (Operation and Maintenance Head)**

He is a technician with 15+ years of experience in biogas field.

- **Vaibhav Domkundwar (Advisory Board)**

He is an entrepreneur with 15+ years of experience in building & iterating early stage products and creating sales & marketing strategies across verticals in global markets including North America, Europe and Asia. He is the founder & CEO at Better, Inc. a venture firm with a focus on incubating and building products in large markets.

## PROBLEMS & OFFERING



## WHAT CAN BE PROCESSED IN EnergyBin™ ?

### Biodegradable Organic Waste



Fruits or Fruit peels



Fruits or Fruit peels



Poultry, Fish & Meat



Egg & Crab Shell



Bakery Food



Fast Food



Meal leftovers



Garden waste

### Non-Biodegradable (prohibited) Waste Material



Rubber, Metal & Glass



Cigarettes & Batteries



Big bones



Plastic Bags, Cloth



Medicines / Chemical



Hard & Iron objects



Coconut shells & tree branches



Any Inorganic Material

## ACTUAL PHOTO OF EnergyBin™

Installed At THYSSENKRUPP Industries, Pimpri





## COMPARISON

### CONVENTIONAL BIOGAS PLANT



### EnergyBin™



## ALTERNATIVE

### Different Technologies

- Composting / Vermi-Compost / OWC / 24 Hr Composting Machine
- Larger Foot Print
- Higher Operating Cost (electricity consumption)
- Un-Aesthetically Design
- Scientifically not design
- By Product is Manure, which is Lower in Revenue



## HAPPY CUSTOMERS

### TRACTION



EUROPEAN UNION



## CASE STUDY – THYSSENKRUPP INDUSTRIES, PIMPRI PLANT

Based on 250 kg of Organic Waste Generated Per Day

PARTICULARS		EB-250
Waste Processing Capacity (kg/d)		250
Size of EnergyBin (LBH) mts		9 X 2.5 X 3
Electricity Consumed (kWh/d)		6
Biogas Output (m3/day)		30-32
LPG Equivalent, (kg)		15
Manure Output, Liquid (Its)		300
<b>Cost of EnergyBin after Depreciation (80%)</b>		<b>Rs. 9,71,500.00</b>
SAVINGS (Rs)		Per Day
		Annual
In Terms of LPG, @ 70 Rs/Kg	1050.00	3,83,250.00
Organic Manure, @ 1 Rs/L	300.00	1,08,000.00
Disposal Cost, @ 25,000 /month	833.00	3,00,000.00
OPERATING COSTING (Rs)		Per Day
		Annual
Electricity Consumed @ 11.5 Rs/kWh	69.00	24,840.00
Manpower Cost @ 300 Rs/day (half Day)	150.00	54,000.00
<b>SIMPLE PAYBACK IN LESS THAN 14 MONTHS</b>		

## EnergyBin™ – NexGen MADE IN INDIA PRODUCT

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- Improved two stage Laterally Stirred Tubular Reactor (LSTR), with a patented scum breaker design and packed microbe holding arrangement
- NeXGeN advance Bio – Reactor
- Equipped with submersible agitator / baffle wall which helps in better digestion and circulation of the slurry inside the digester and avoid settling of the solids. It also ensures maximum volatile solids degradation
- Fabricated from IS 2062 grade mild steel of 6mm thickness, with double layer epoxy and PU coat and is tested at 3 times its operational pressure
- Indigenously developed efficient crushing-cum-pumping system, submersible heater for automatic temperature control
- Uncomplicated installation, quick construction time and quick start-up
- Programmable Logic Control (PLC) based panel for ease of operation and control of the plant .
- High-quality standardized components and parts, low maintenance operation
- Stand-alone operation possible

## STANDARD MODELS - EnergyBin™

PARTICULARS	EB-100	EB-250	EB-500	EB-750	EB-1000	EB-1500	EB-2000	EB-2500
Waste Processing Capacity (Kg/d)	100	250	500	750	1000	1500	2000	2500
Dimensions (L x B x H) m	4 x 2.5 x 2.5	6.5 x 2.7 x 3	6.5 x 3.5 x 3.5	9 x 3.5 x 3.5	9 x 4 x 4	12.5 x 4 x 4	15 x 4 x 4	18 X 4 X 4
Electricity Consumed (kWh/d)	2.5	6	10	12	18	25	31	38
Biogas Output (Nm <sup>3</sup> )	12-13	30-32	60-64	90-95	120 -130	180-190	240-260	300 -340
LPG Equivalent Biogas (Kg)	7	15	30	45	60	90	120	150
Power Generation Potential (kWh)	18	45	90	135	180	270	360	450
Manure Output @ 30% TS (Dry)	10	25	50	75	100	150	200	250
Liquid Manure (liters)	80	200	400	600	800	1200	1600	2000
<b>SAVING</b>								
LPG Replace / Ann @ 70 Rs/Kg	1,76,400.00	3,78,000.00	7,56,000.00	11,34,000.00	15,12,000.00	22,68,000.00	30,24,000.00	<b>37,80,000.00</b>
Electricity Produce/ Ann @ 11.5 Rs/kWh	74,520.00	1,86,300.00	3,72,600.00	5,58,900.00	7,45,200.00	11,17,800.00	14,90,400.00	<b>18,63,000.00</b>
Organic Manure / Ann @ 3 Rs/kg	10,800.00	27,000.00	54,000.00	81,000.00	1,08,000.00	1,62,000.00	2,16,000.00	<b>2,70,000.00</b>
Disposal Cost / Ann @ 0.75 Rs/kg	27,000.00	67,500.00	1,35,000.00	2,02,500.00	2,70,000.00	4,05,000.00	5,40,000.00	<b>6,75,000.00</b>

## CONTACT DETAILS

**Come...  
Join the Movement!**

**Let's make a Swachh World!!**

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