



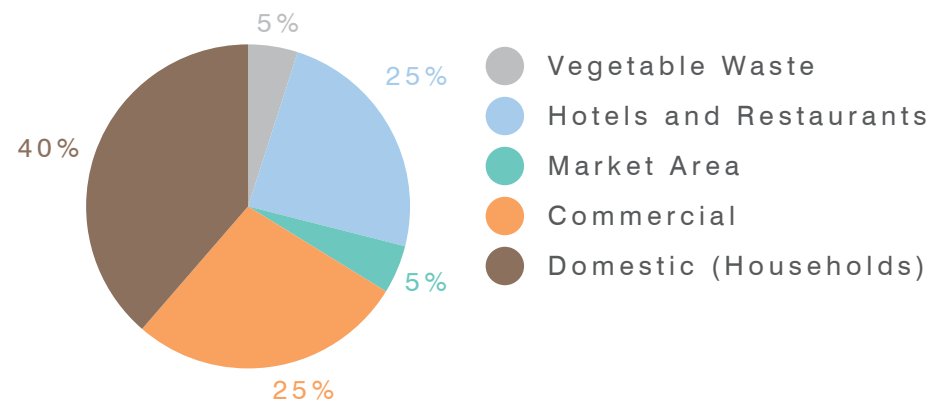
Proposed by:

Swachh Bharat

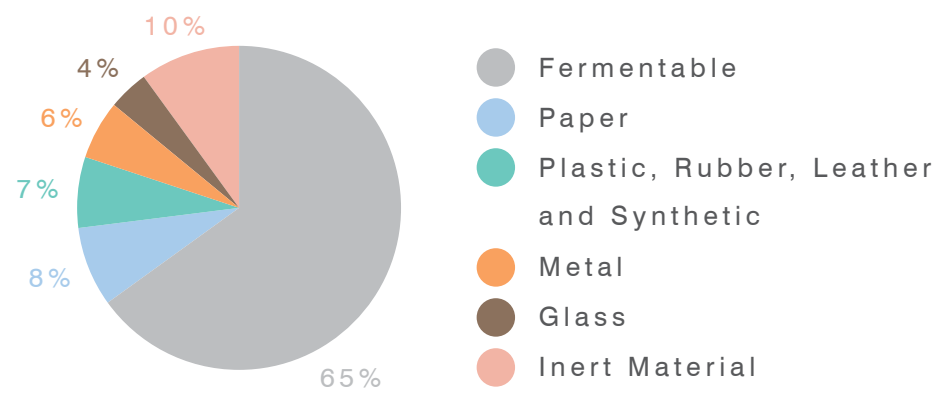
Envisioned through
technology



Pune's growth figures. (in terms of waste)



Source wise Quantity of Waste Generation



Waste Characteristics for Pune



1976
200
Metric Ton

1986
500
Metric Ton

1996
10,000
Metric Ton

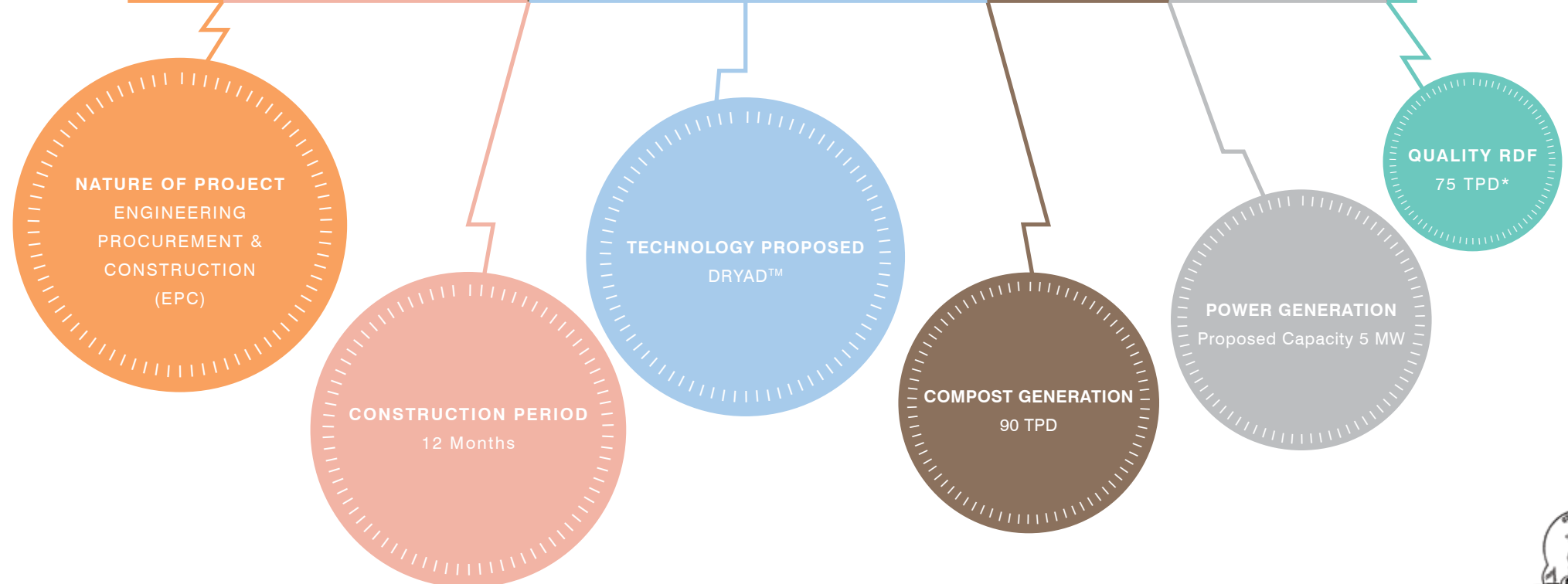
2006
50,000
Metric Ton

2016
1,00,000
Metric Ton

There is a need of an efficient and indigenous way of treating the waste.



Presenting a 500 TPD MSW Processing WtE Plant at Pune.



Technology that understands Bharat.



Operates at 55°C

DRYAD™ operates at 55°C
(temp suitable for operation in Indian cities)



Lesser Area for Operation

It has a high loading rate that requires less digester volume and in turn requires less area for operation as compared to landfills.



Odourless Operation

Odor less operation as it's a closed process (which results in high public acceptance)



Higher Electricity

Bio gas generation is in the range of 117nm³ to 124 nm³/ton of waste (which results in higher electricity generation)



Lower Captive Consumption

Captive consumption of electricity is low as compared to thermal technologies.



Lesser period for Digestion & Composting

Digestion & composting period ranges from 14 to 21 days which is less as compared to conventional processes.



Better Quality Of Compost

Quality of compost is better than conventional product as all inerts are being removed during pre-treatment & pathogens are completely absent as the digestion takes place at a high temperatures. The compost from the process qualifies for required FCO norms.

DRYAD™



Based on processes researched and recommended by Government of India.

Extensive research by Government of India has determined that Anaerobic digestion is the most appropriate for Indian conditions. Comparative chart with other technologies available.

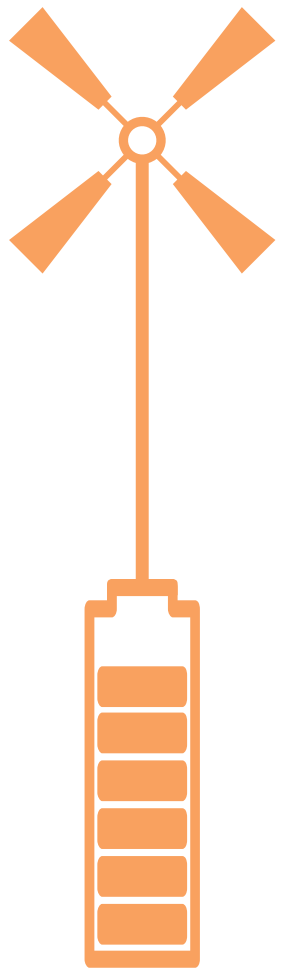
Technology Comparison

Technology	End Products	Seasonal Impact	Revenue realization	Cost effective	Product Quality	Adopting Companies
Anaerobic digestion	Power, QRDF & Compost	None	●●●	●●●	●●●	ORS
Composting	Compost	●●●	●	●	●	Tectonics UPL Passco, IL&FS
Gasification/ Incineration	Energy	●●	●●	●	●●	Jindal Ecoplis G20 Power
Pallestisation	Potential for RDF & Energy	●●●	●	●	●●	Jindal, Essel Ramky, Zuci

● Positive ● Negative



Revenue Model of the project.



Power Generation



*Quality Refuse
Derived Fuel(RDF)*



Organic Compost



Recyclable Waste



Tipping Fee

Live case study

400 TPD Solapur Project on Mixed MSW is completed & 200 TPD is operational since July 2013. It is 'FIRST OF ITS KIND' operational plant based on Biomethanation process in the Country.



Environmental impact Assessment Report

Descriptions

Central Pollution Control Board

National Ambient Air Quality Standards

Sr.No.	Parameter	Time Weighted Average	Industrial Area	Residential Rural & Other Areas	Sensitive Area
1	SO ₂	24Hours	120ug/m ³	80ug/m ³	30ug/m ³
2	NO ₂	24Hours	120ug/m ³	80ug/m ³	30ug/m ³
3	RSPM	24Hours	150ug/m ³	100ug/m ³	75ug/m ³

Solapur Bio-Energy System (P) Ltd

AAQS Monitored by Maharashtra SPCB

At Solapur Municipal Corp. MSW Site		
Jan-15	Feb-15	Mar-15
28ug/m ³	19ug/m ³	17ug/m ³
5ug/m ³	3ug/m ³	4ug/m ³
83ug/m ³	67ug/m ³	49ug/m ³

