

# **Waste to Energy Market - Asia-Pacific Industry Analysis and Opportunity Assessment 2014 – 2020**

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February 2015



# Agenda

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**Analysis Framework - Samples**

## Section 01

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# About Future Market Insights



# About Future Market Insights

## Research Capabilities

- Customized Research
- Syndicated Research
- Investment Research
- Social Media Research

## Sector Coverage

- Automotive and Transportation
- Electronics, Semiconductor, and ICT
- Retail and Consumer Products
- Industrial Automation and Equipment
- Chemicals & Materials
- Food and Beverages
- Services and Utilities
- Energy, Mining, Oil, and Gas

## Key Research Offerings



**Global Reports**



**Regional Reports**



**Country Reports**



**Excel Forecast Sheets**



**Competition Assessment**



**Feasibility Studies**



**Technology Snippets**



**Survey Research**



**Any Other Research Requirement  
HAPPY TO ADDRESS**

Future Market Insights (FMI) is a premier provider of syndicated research reports, custom research reports, and consulting services. We deliver a complete packaged solution, which combines current market intelligence, statistical anecdotes, technology inputs, valuable growth insights, aerial view of the competitive framework, and future market trends.

We provide research services at a global as well as regional level; key regions include GCC, ASEAN, and BRIC.

Our offerings cover a broad spectrum of industries including Chemicals, Materials, Energy, Technology, Healthcare, and Retail.

We have a global presence with delivery centers across India specializing in providing global research reports and country research reports. FMI is headquartered out of London, U.K., with a state-of-the-art delivery center located in Pune, India. We combine our knowledge and learning from every corner of the world to distill it to one thing – the perfect solution for our client.

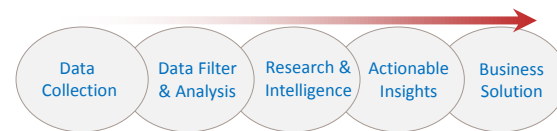
## Section 02

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# Research Methodology

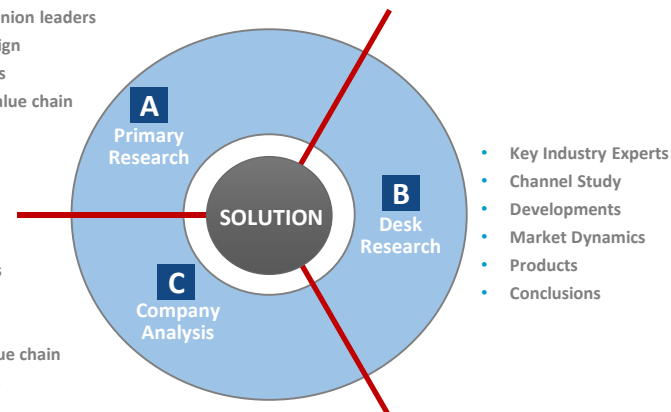


# Research Methodology



- Identifying key opinion leaders
- Questionnaire design
- In depth interviews
- Coverage across value chain

- Market Participants
- Key Strengths
- Product Portfolio
- Mapping as per value chain
- Key focus segments



Primary Research #	Secondary Research #	Paid Publications#
<ul style="list-style-type: none"> <li>• LinkedIn</li> <li>• Zoominfo</li> <li>• Salesforce</li> <li>• Hoovers</li> <li>• Onesource</li> </ul>	<ul style="list-style-type: none"> <li>• Company Websites</li> <li>• Company Annual Reports</li> <li>• White Papers</li> <li>• Financial Reports</li> </ul>	<ul style="list-style-type: none"> <li>• Factiva</li> <li>• GBI</li> <li>• Genios</li> <li>• Meltwater</li> </ul>

# includes sources of databases

# Forecasting Methodology

- ❑ The forecast presented here assesses the total revenue by both Value and Volume across the market. When forecasting a given market, the starting point is sizing the current market, which forms the basis for the forecast of how the market will develop in the future.
- ❑ Given the characteristics of the market , we triangulated the outcome of three different types of analyses based on different methodologies, rather than relying on the methodology of a single analysis. This is described in more detail in a later section
- ❑ An iterative approach was used where assumptions were adjusted until a converged and consistent picture emerged from the three methodologies.

## Approaches are referred to analysis



### Product

- ❑ The purpose of this analysis was to provide a baseline on the number of products in the installed base. FMI's primary research among the end users provide the starting point for the same.
- ❑ Secondary research was used to shipment volume and average selling prices (ASPs) for each category in 2014. Estimates of ASPs were compared for products from different companies across market segments and categories. The retail price at distributor level was compared; discounted prices are not considered as scope of report
- ❑ We also considered whether each product/technology category was mature or emerging, and whether technology advancements are likely to evolve the product category into devices offering significantly more benefits to users. Furthermore, we considered whether any alternative product/technology may be substitutes for the segment.



### Population

- ❑ The purpose of this analysis was to judge the size of the market in relation to populations of people that would have the need for the target market. Different populations would have distinct primary usages for the categories.



### Economy

- ❑ The purpose of this analysis was to ensure consumer spending on the target segment to fit within the constraints of overall consumer spending.

## Section 03

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# Table of Contents



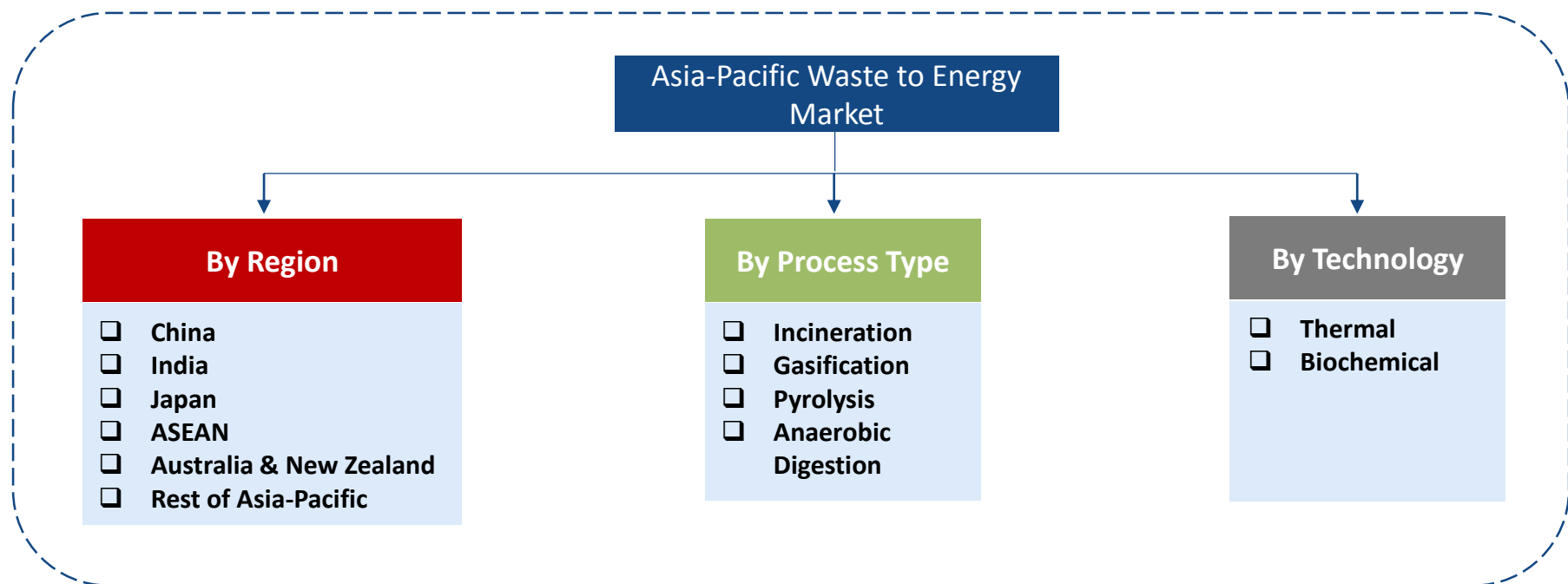


# How to Read This Report

## How to Locate Information in this Report

<b>1</b> <b>Definitions, Segmentation &amp; Acronyms</b>	<ul style="list-style-type: none"> <li>❑ The first section of this report, after Table of Contents, List of Figures and List of Tables, comprises the following points: <ul style="list-style-type: none"> <li>▪ Definition of the target market</li> <li>▪ How FMI has segmented the target market</li> <li>▪ Research methodology used to arrive at the indicated market numbers</li> <li>▪ Acronyms and assumptions considered in report</li> </ul> </li> </ul>
<b>2</b> <b>Market Dynamics &amp; Parent Market Performance</b>	<ul style="list-style-type: none"> <li>❑ The second section of report briefly elaborates the major factors impacting and enabling growth of the target market as well as growth of the parent industry/product/services. The section includes: <ul style="list-style-type: none"> <li>▪ Key growth drivers and the impact of various drivers on the target market</li> <li>▪ Major challenges and the impact of these challenges on the target market</li> <li>▪ Co-relation of target market with parent/mother industry and its performance</li> <li>▪ Trends and recent developments in the target market</li> </ul> </li> </ul>
<b>3</b> <b>Key Analysis &amp; Insights</b>	<ul style="list-style-type: none"> <li>❑ The report is segmented section-wise on the basis of application, product type, technology, end-user industry and key geographical regions</li> <li>❑ Each of the sections provide a detailed analysis of the target market and include information such as: <ul style="list-style-type: none"> <li>▪ Market Size &amp; CAGR – Historic, Current Estimated &amp; Forecast for the next five years</li> <li>▪ Y-o-Y Growth Rate comparison of sub-segments</li> <li>▪ Market Share / Proportion of sub-segments through BPS analysis</li> <li>▪ Absolute \$ Opportunity in each sub-segment of the target market</li> </ul> </li> </ul>
<b>4</b> <b>Competition Assessment &amp; Company Profiles</b>	<ul style="list-style-type: none"> <li>❑ Competitive landscape is encompassed in this section of the report, and includes: <ul style="list-style-type: none"> <li>▪ Dashboard view of the competitive benchmarking, based on the relative positioning of competitors</li> <li>▪ Product offerings of major competitors in the target market</li> <li>▪ Company profile section covers overview, financials, recent developments, SWOT analysis and brief business strategy for the target market/product/services</li> </ul> </li> </ul>

# Market Taxonomy



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## Waste to Energy Market - Asia-Pacific Industry Analysis and Opportunity Assessment 2014 – 2020

1. Executive Summary	5.1. Introduction
2. Research Methodology	5.1.1. Y-o-Y Growth Comparison, By Region
3. Assumptions & Acronyms Used	5.1.2. BPS Analysis, By Region
<b>4. Market Overview</b>	5.2. Asia-Pacific Waste to Energy Market Size & Forecast, By Region
4.1. Introduction	<b>5.2.1. China</b>
4.1.1. Market Taxonomy	<b>5.2.2. India</b>
4.1.2. Market Definition	<b>5.2.3. Japan</b>
4.2. Global Waste to Energy Market Forecast & Y-o-Y Growth	<b>5.2.4. ASEAN</b>
4.3. Asia-Pacific Energy Mix	<b>5.2.5. Australia &amp; New Zealand</b>
4.4. Asia-Pacific Waste to Energy Market Scenario	<b>5.2.6. Rest of Asia-Pacific</b>
4.5. Market Dynamics	5.3. Market Attractiveness Analysis, By Region
4.5.1. Drivers	5.4. Market Trends
4.5.2. Restraints (Environment, Technology & Economic Challenges/Barriers)	<b>6. Asia-Pacific Waste to Energy Market, By Process</b>
4.5.3. Opportunity	6.1. Introduction
4.5.4. Value Chain	6.1.1. Y-o-Y Growth Comparison, By Process
4.5.4.1. Technology Suppliers	6.1.2. BPS Analysis, By Process
4.5.4.2. Operators	6.2. Asia-Pacific Waste to Energy Market Size & Forecast, By Process
4.6. Market Trends	<b>6.2.1. Incineration</b>
4.7. Government Policies & Regulation - Impact Analysis	<b>6.2.2. Gasification</b>
<b>5. Asia-Pacific Waste to Energy Market, By Region</b>	<b>6.2.3. Pyrolysis</b>

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## Waste to Energy Market - Asia-Pacific Industry Analysis and Opportunity Assessment 2014 – 2020

### 6.2.4. Anaerobic digestion

6.3. Market Attractiveness Analysis, By Process

6.4. Market Trends

## 7. Asia-Pacific Waste to Energy Market, By Technology

7.1. Introduction

7.1.1. Y-o-Y Growth Comparison, By Technology

7.1.2. BPS Analysis, By Technology

7.2. Asia-Pacific Waste to Energy Market Size & Forecast, By Technology

7.2.1. Thermal Waste to Energy

7.2.2. Biochemical Waste to Energy

7.3. Market Attractiveness Analysis, By Technology

7.4. Market Trends

## 8. Competitive Landscape

8.1. Competition Dashboard (Waste to Energy Plant Operators)

8.2. Competition Dashboard (Waste to Energy Technology Suppliers)

8.3. Operators Company Profiles (Details - Overview, Installed Capacity, Financials, Developments, SWOT analysis)

8.4. Technology Suppliers Company Profiles (Details - Overview, Product Portfolio, Financials, Developments, SWOT analysis)

### Note:

- ❑ This ToC is tentative in nature and so is subject to further refinement during the course of the research
- ❑ The list of company profiles included in this ToC is tentative. Profiles of specific players, if required, shall be added to the report upon request
- ❑ Financial details will be sourced from information available in public domain

**Refer Next Slide For Examples of Companies We Are Covering In Profiles Section**

# Company Profiles (Waste to Energy Plant Operators)

Japan	➤ Clean Association of Tokyo
	➤ JFE Holdings
	➤ Mie Prefecture Public Enterprise
	➤ Osaka City Environmental Protection Bureau
	➤ Mitsubishi Materials Corp
	➤ Kitakyusyu City Environment Bureau
	➤ Fukuoka Clean Energy Corp
	➤ Tokyo Waterfront Recycle Power Co Ltd
Taiwan	➤ Onyx Ta-Ho Environnemental Services Co
	➤ Taipei City Department of Environmental Protection
	➤ Hsin Yung Enterprise Corp
China	➤ GCL-Poly Energy Holdings Ltd
	➤ Golden State Environment Corp
	➤ Hebei Lingda Environment-Friendly Energy Co Ltd
	➤ Chongqing Sanfeng Covanta Environmental Industry Co Ltd
	➤ Shenzhen Energy Group Co Ltd
Singapore	➤ Sembcorp Power
Malaysia	➤ Recycle Energy Sdn Bhd
	➤ KNM Renewable Energy Sdn Bhd

# Company Profiles (Waste to Energy Technology Suppliers)

Company	Headquarter
➤ Siemens AG	▪ Bavaria, Germany
➤ Ansaldo Caldaie S.p.A	▪ Tokyo, Japan
➤ Shin Nippon	▪ Osaka, Japan
➤ Hitachi Zosen Corporation	▪ Osaka, Japan
➤ Nanjing Triumph Kaineng Environment & Energy Co., Ltd.	▪ Nanjing, China
➤ Kawasaki Heavy Industries, Ltd.	▪ Kobe, Japan
➤ Mitsubishi Heavy Industries, Ltd.	▪ Tokyo, Japan
➤ GE Jenbacher GmbH & Co OG	▪ Jenbach, Australia
➤ Fuji Heavy Industries, Ltd	▪ Tokyo, Japan
➤ Shaoxing Dongfang Energy Engineering Technology Co.,Ltd.	▪ Zhejiang, China
➤ Zhengzhou Allance Machinry	▪ Zhengzhou, China
➤ Kirloskar Integrated Technologies Limited	▪ Maharashtra, India
➤ Greenergy Solutions Inc.	▪ Quezon City, Philippines

## Section 04

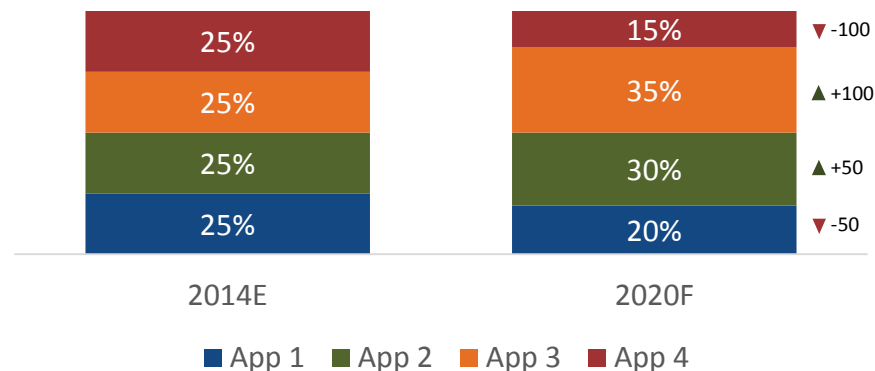
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# Analysis Framework

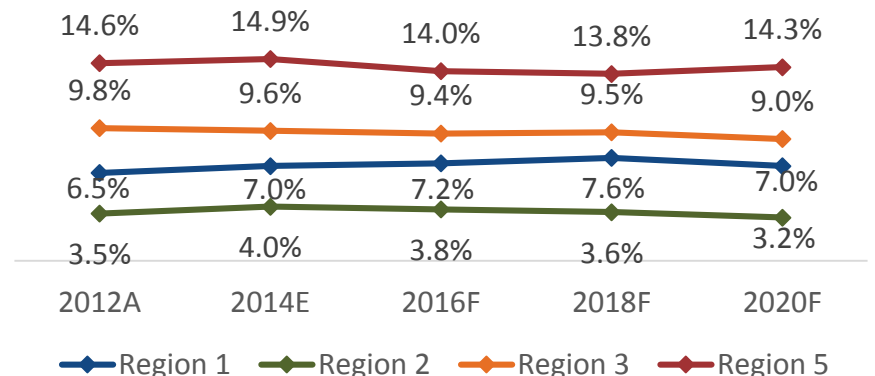


# Analysis Frameworks (1/3)

## Basis Point Share (BPS) Analysis, By Application



## Y-o-Y Growth Comparison, By Region



## Key Takeaways

### □ Basis Point Share (Market Share) Analysis

- Basis point share analysis is done for each market level such as analysis by region, product type, category, technology, and applications
- It represents the change in market share of the particular segment over the forecast period
- It presents the quantification of trend of a particular market segment in terms of its market share during the forecast period

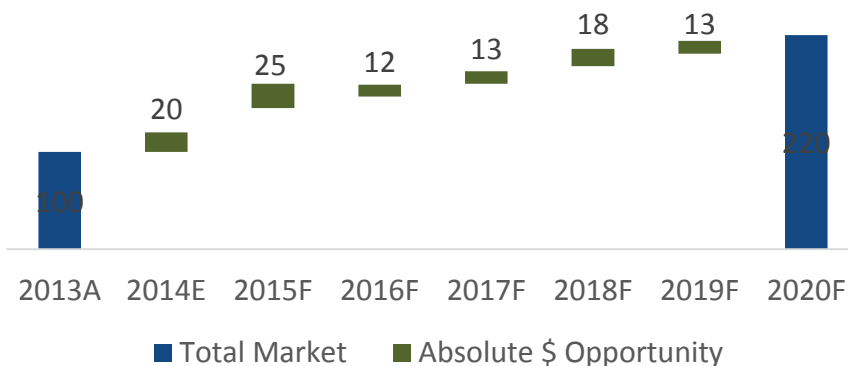
### □ Y-o-Y Growth Comparison

- Year on year growth comparison presents an overview of how the market segments are projected to perform over the forecast period
- It presents a clear segmentation between high, moderate, and low growth markets during the forecast period
- It also provides a glimpse of how the forecast is developed for particular market segments



# Analysis Frameworks (2/3)

## Absolute \$ Opportunity Analysis (\$ Mn)

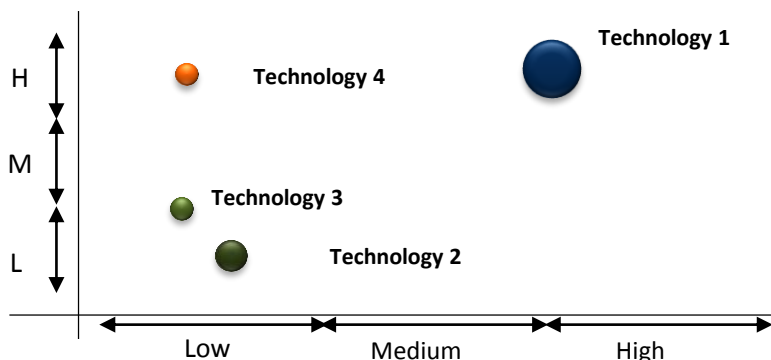


## Key Takeaways

### ❑ Absolute \$ opportunity

- While estimating the market size, some facts are usually overlooked and the opportunity is misunderstood in terms of growth rate and market share
- Absolute \$ opportunity provides a clear quantification of incremental revenue opportunities to be materialized by the industry players every year
- It also provides the change in magnitude of revenue opportunity over the forecast period

## Market Attractiveness Analysis, By Technology



### ❑ Market Attractiveness Analysis

- Market attractiveness analysis is done for all the levels of market such as applications, regions, product types, and technology
- It provides a three dimensional view of the market by taking into account present market size, CAGR and projected market size
- It provides a clear segregation of market in terms of high, medium, and low growth and size

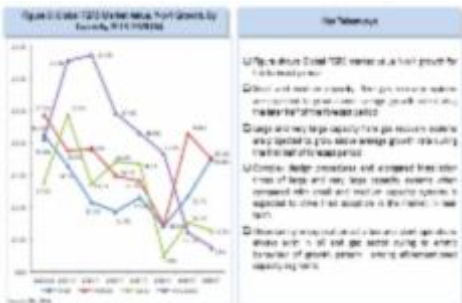
# Analysis Frameworks (3/3)

## Report Highlights

### Segment Performance Analysis



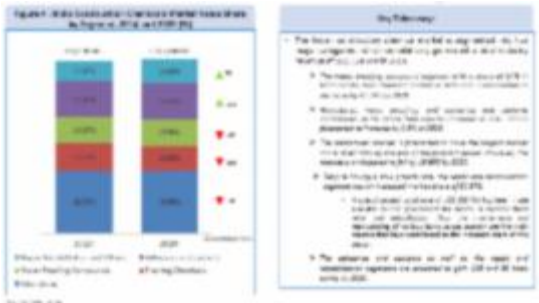
### Y-o-Y Growth Comparison



### Market Forecast and Absolute \$ Opportunity Analysis



### Basis Point Share (BPS) Analysis



### Competition Dashboard (A)



### Competition Dashboard (B)





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**[www.futuremarketinsights.com](http://www.futuremarketinsights.com)**



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**THANK YOU**