

Where ENZYME is life



## Advanced Enzyme Technologies Limited

Investor Presentation | March 2017

## Disclaimer



This information may contain certain forward-looking statements/details in the current scenario, which is extremely dynamic and increasingly fraught with risks and uncertainties. Actual results, performances, achievements or sequence of events may be materially different from the views expressed herein. Investors/shareholders/public are hence cautioned not to place undue reliance on these statements/details, and are advised to conduct their own investigation and analysis of the information contained or referred to in this section before taking any action with regard to their own specific objectives. Further, the discussion following here in reflects the perceptions on major issues as on date and the opinions expressed here are subject to change without notice. The Company under takes no obligation to publicly update or revise any of the opinions or forward-looking statements expressed in this section, consequent to new information, future events or otherwise.



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## Company Overview





### Company Overview

Advanced Enzymes is a research driven company with global leadership in the manufacturing of enzymes. We are committed to providing eco-safe solutions to a wide variety of industries like human health care and nutrition, animal nutrition, baking, fruit & vegetable processing, brewing & malting, grain processing, protein modification, dairy processing, speciality applications, textile processing and others. Our aim is to replace traditionally used chemicals with eco-friendly enzymatic solutions.

### Mission



It is our mission to see that every human being is able to take advantage of the power of enzymes for well-being and leading a healthy life!

### Vision



Our vision at Advanced Enzymes is to become the leading, enzyme-based, value provider to consumers and Bio-Processors globally!

# What are enzymes?

Enzymes are natural protein molecules that act as catalysts within living cells, produced by all living organisms. Function as specialized catalysts and accelerate the pace of biochemical reactions. Advanced uses enzymes to replace chemicals in, and improve efficiency of, a wide variety of industrial processes for its customers.



# Board of Directors



**Mr. Kedar Desai**

*Chairman and Independent Director*

Mr. Kedar Jagdish Desai, is the Chairman, Non-Executive and Independent Director on our Board. He holds a Bachelor's degree in Commerce and Law from the University of Mumbai. He is also a qualified solicitor from the Bombay Incorporated Law Society and has over 19 years of experience in the field of law.



**Mr. Ramesh Mehta**

*Independent Director*

Mr. Ramesh Thakorlal Mehta is a Non-Executive and Independent Director of our Company since 1993. He has experience in the business of jewellery designing and manufacturing.



**Mrs. Rupa Vora**

*Independent Director*

Mrs. Rupa Rajul Vora, is a Non-Executive and Independent Director of our Company since November 28, 2015. She was the Chief Financial Officer at Antwerp Diamond Bank N.V., after which she joined IDFC Group as a Group Director and Chief Financial Officer-Alternatives until June 2014. Currently, she serves as an independent director on a few corporate boards.



**Mr. Pramod Kasat**

*Independent Director*

Mr. Pramod Kasat, is a Non-Executive and Independent Director of our Company since December 14, 2016. He is currently the Country Head "Investment banking , Indusind Bank, Mumbai.



**Mr. Vasant Rathi**

*Non-Executive Director*

Mr. Vasant Laxminarayan Rathi is the Promoter and a Non-Executive and Non-Independent Director of our Company. He promoted & incorporated Cal-India in the year 1985 and has been associated with our Company since the year 1993. Mr. Rathi heads our international subsidiaries based in US.



**Mr. C L Rathi**

*Managing Director*

Mr. Chandrakant Laxminarayan Rathi, is the Promoter and Managing Director of our Company. He is currently responsible for the management of the entire operations of the Company and its Indian subsidiaries, including strategic initiatives of our businesses.



**Mrs. Savita Rathi**

*Whole-time Director*

Mrs. Savita Chandrakant Rathi, is the Whole-time Director of our Company. She is responsible for the administration of the Company, management and supervision of Export-Import, Client relationship management and the Human Resource department of the Company.



**Mr. Mukund M. Kabra**

*Whole-time Director*

Mr. Mukund Madhusudan Kabra, is the Whole-time Director of our Company. He is responsible for overlooking the manufacturing operations of the Company at Sinnar and Indore and for optimising the fermentation for existing products, strain improvement, downstream research and analytical research.

# Management Team



**Piyush Rathi**

*Chief Business Officer*

A double graduate, Piyush first completed his Bachelors in Maths from Mumbai University and then in Finance from Michigan Tech University, USA. Subsequently he completed his MBA from SCMHRD and joined Advanced Enzymes in April 2005. In 2007 and in 2010, Piyush took charge of the Human Nutrition and Bio-Processing businesses respectively, and since 2014, he has also started developing the Animal Nutrition business internationally. Today, as Chief Business Officer, his key responsibility is to oversee the development of the company's business in Europe & Asia. He has also been instrumental in the recent acquisition of JC Biotech.



**Beni Prasad Rauka**

*Chief Financial Officer*

Mr. Beni Prasad Rauka, a Chartered Accountant and Company Secretary by qualification, brings with him a rich experience of over 24 years in the Finance Industry. Mr. Rauka has worked with Category I Merchant Banking firms and finance companies in his long standing career. Mr Rauka joined Advanced Enzymes in the year 2000 as a consultant. Rauka has been leading the financial innovation in the new business structure and managing the financial activities of all group companies since 2007. As Group CFO, his prime objective today is to ensure that adequate and cost-effective finance is available for the group's strategic plans and investments.



**Dr. Anil Gupta**

*Vice President  
Research & Development*

Dr. Anil Gupta is a Ph.D. in Microbiology with over 18 years of experience in Industrial Biotechnology. Prior to his joining Advanced Enzymes, he also received the coveted Young Scientist Award Project from Department of Science & Technology, Govt. Of India and has worked as Principal Investigator in several research projects. Today, as Vice President - Research & Development, General Manager Research & Development, Dr. Gupta heads the process development, proteomics & the applied microbiology labs and leads the research effort in developing several new commercially-viable enzymes every year.

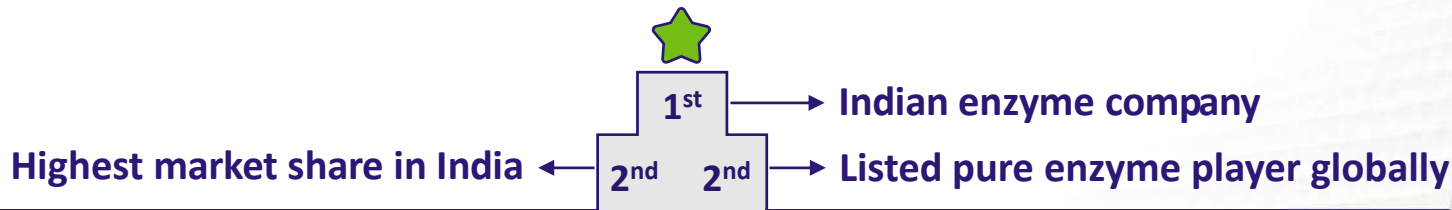


**Dipak Roda**

*Vice President  
Market & Business Development*

After having secured a Chemical Engineering degree from Bharati Vidyapeeth, Pune and a M.Sc. Tech in Bioprocess Technology from UDCT, Mr. Dipak Roda began his career with Khandelwal Laboratories in their biotechnology division. Mr. Roda joined Advanced Enzymes in 2005 as a General Manager in Sales & Marketing. He played a key role in aligning the product baskets to the respective industries that they catered to. He led the company's entry into the large and competitive Chinese market through establishment of Advanced Enzyme Far East. Today, his focus is on growing the bio-processing business in the American continents and his key challenge is to build a strong marketing, sales & distribution network there.

# Advanced Enzyme Technologies Limited – A Rising Global Star



Amongst Top 15 Global Enzyme Companies



**Manufacturing Units – 7**

India - 5      USA - 2



**R&D Units – 5**

India - 4      USA - 1



**60+**

Indigenously Developed Enzymes



**400+**

Proprietary Products



**700+**

Customers Worldwide



**45+**

International Presence



**22+**

Years of Fermentation Experience



**13**

Registered Patents\*



**11**

Food Enzyme Dossiers filed with EFSA\*



**420**

m<sup>3</sup> Fermentation Capacity

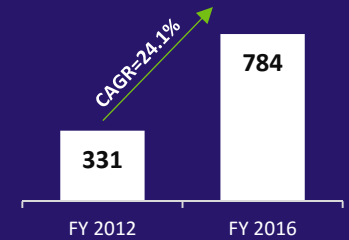


**500+**

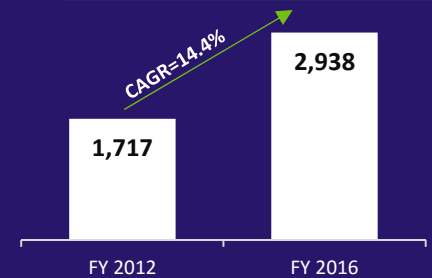
Employees

\* As on the date of RHP

**PAT (₹ mn)**



**Revenue (₹ mn)**

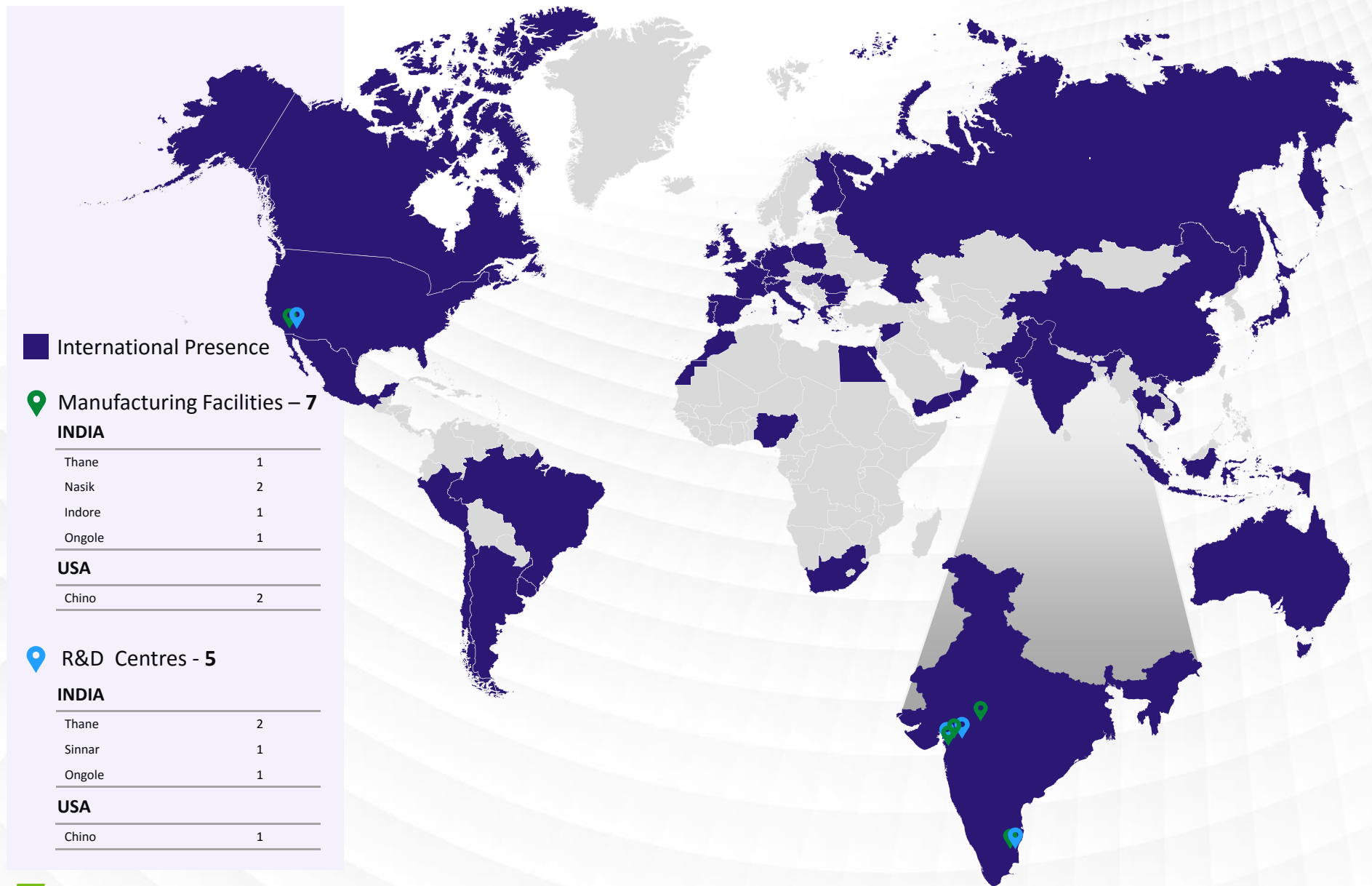


**EBIDTA (₹ mn)**

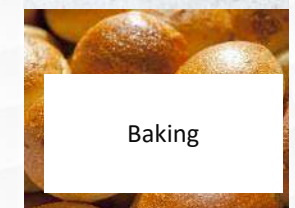
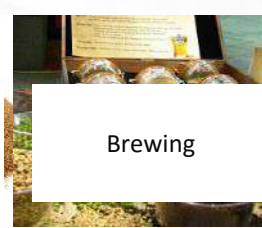
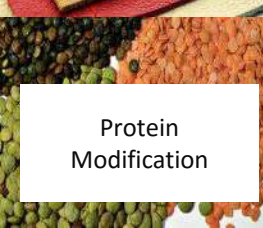
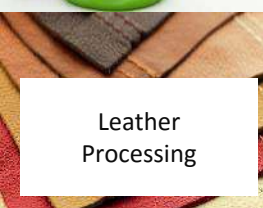
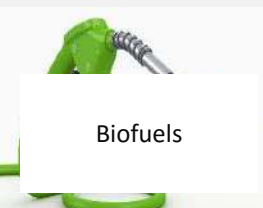
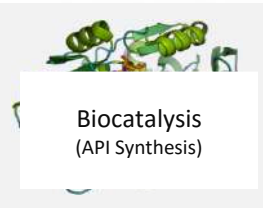




# Geographical Presence



# Catering to Diverse end-use Industries

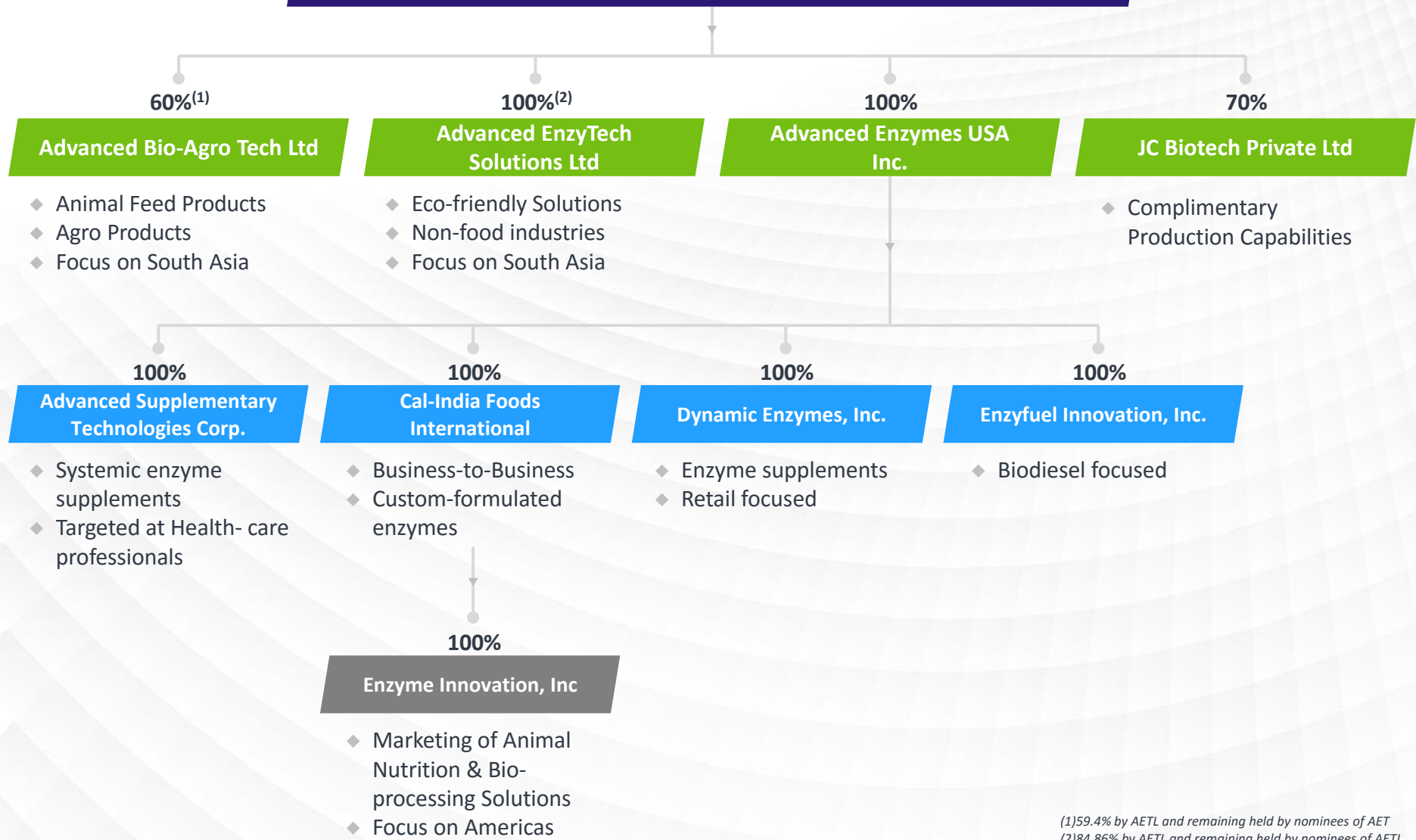


- ◆ Supply enzyme products, enzyme blends & customised enzyme solutions
- ◆ Leverage R&D to deliver high quality products at globally competitive prices
- ◆ Assist customers worldwide to
  - Optimize their process
  - Improve their product quality
  - Save their time & money
  - Mitigate industrial impact on environment

# Corporate Structure

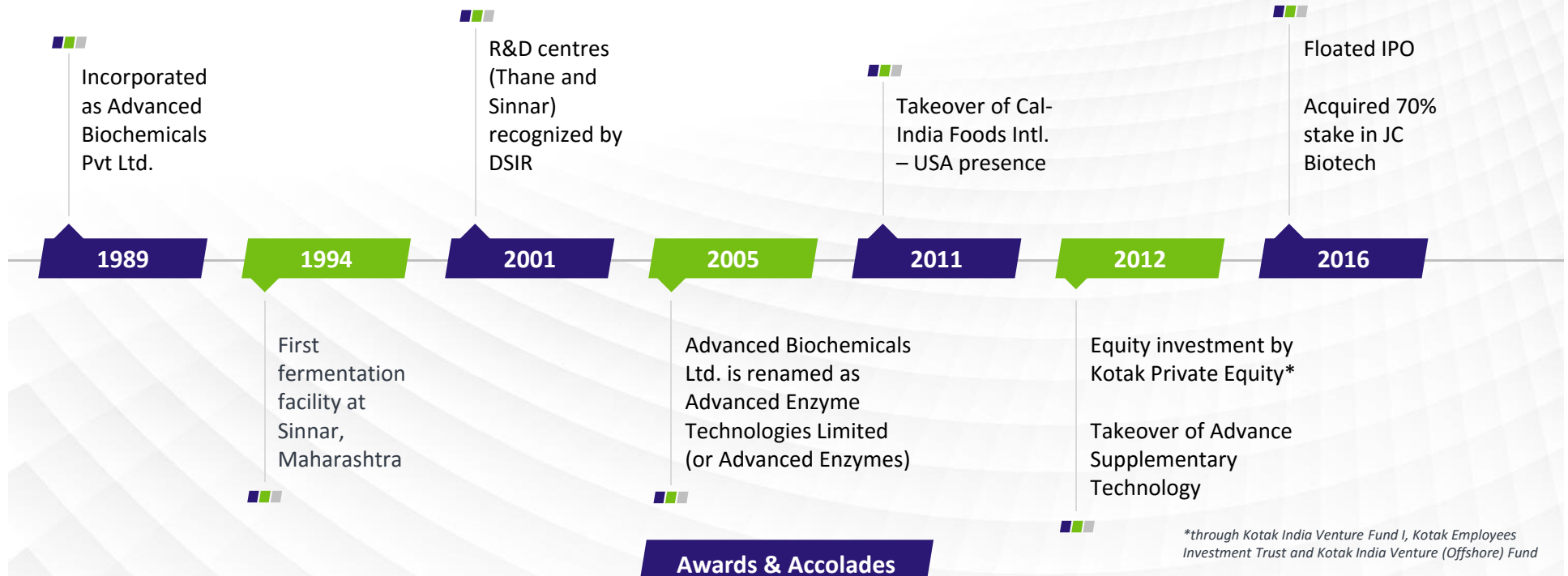


## Advanced Enzyme Technologies Ltd. (AETL)



(1) 59.4% by AETL and remaining held by nominees of AETL  
 (2) 84.86% by AETL and remaining held by nominees of AETL

# Brief History and Evolution



## Awards & Accolades

### 2010



- ◆ Bio Excellence Award in Industrial Biotechnology – Govt. of Karnataka
- ◆ Emerging India Awards in Life Science – Pharmaceuticals & Chemicals – ICICI Business Banking & CNBC TV18

### 2013



- ◆ Fastest Growing Mid-Sized Business Awards – Inc. India

### 2014



- ◆ Bio Excellence Awards in Industrial Biotechnology – Govt. of Karnataka

### 2016



- ◆ Best Nutraceutical Company of the Year
- ◆ Biotech Leader of the Decade

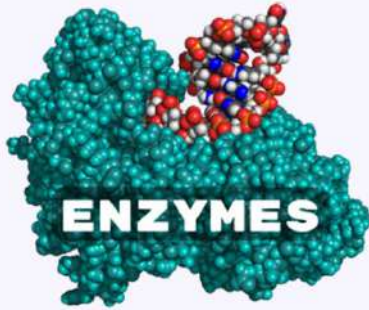


## Global Enzyme Market





## Usage of Enzymes



### Enzymes

### Industrial Enzymes

- ◆ High volume, low value-added application

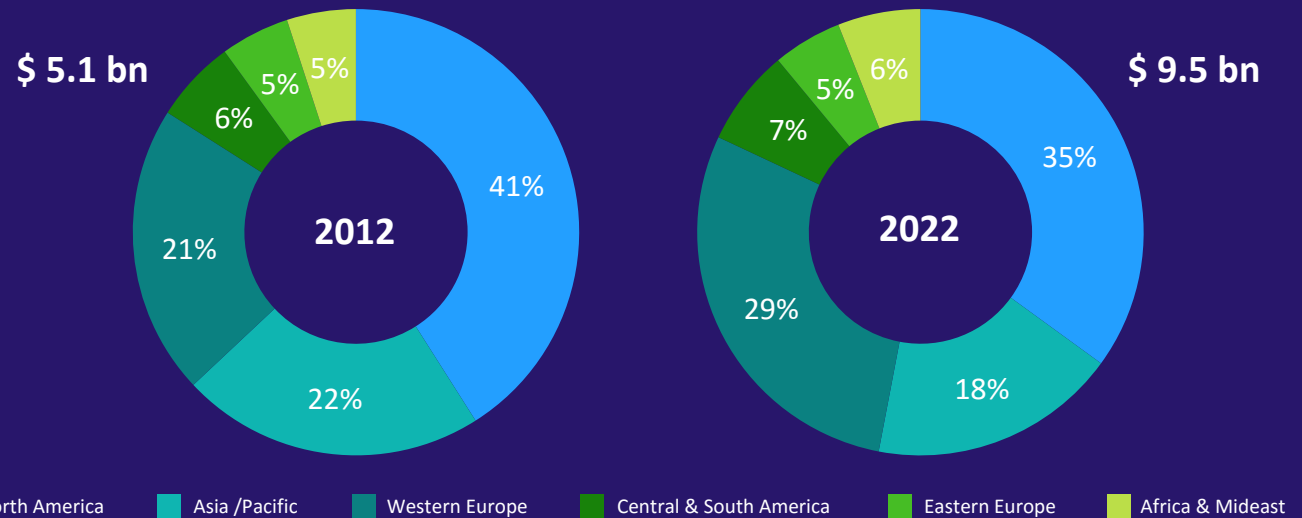
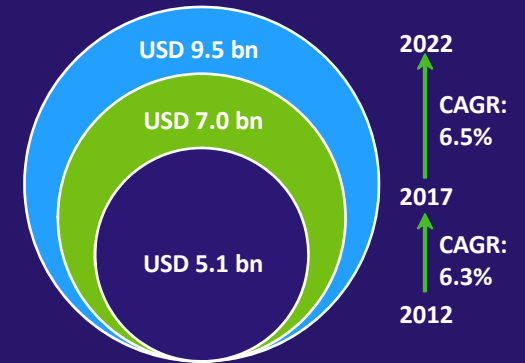
### Specialty Enzymes

- ◆ Low volume, high value-added application

## World Enzyme Demand by Region

- ◆ Global growth to be led by Specialty Enzymes while Industrial Enzymes expected to see moderate growth
- ◆ North America dominates the global enzyme market
- ◆ Developing countries and especially Asia/Pacific and Central/South America to witness the fastest growth
- ◆ Indian enzyme market to grow from USD 105 mn in 2015 to USD 279 mn in 2022 at a CAGR of 15.0%

## Global Market Size



Source: Freedonia Report

# Underlying Trends Driving Global Enzyme Demand

## Growing Population

Per capita Income, growing middle class and urbanization, particularly in rapidly developing economies

### Global Industrial Enzymes

(USD Mn)	Biofuel	Cleaning Product	Food & Beverages	Animal Feed	Other Industrial
2012	515	920	1320	395	480
2022	640	1,690	2,555	745	670
CAGR	2.2%	6.3%	6.8%	6.6%	3.4%
	✓	✓	✓	✓	✓

- ◆ Expansion of middle class population & meat consumption
- ◆ Adoption of Western-style diets
- ◆ Global focus on environment and reducing wastage

### Global Specialty Enzymes

(USD Mn)	Research & Biotechnology	Diagnostic	Other Specialty	
			Biocatalysts	Nutraceuticals
2012	815	430	255	
2022	1,720	950	530	
CAGR	7.8%	8.2%	7.6%	
	-	-	✓	✓

- ◆ Falling cost of DNA manipulation & sequencing
- ◆ Demographic shift to aid growth of diagnostic enzymes
- ◆ Perceived health benefits of nutraceutical enzymes



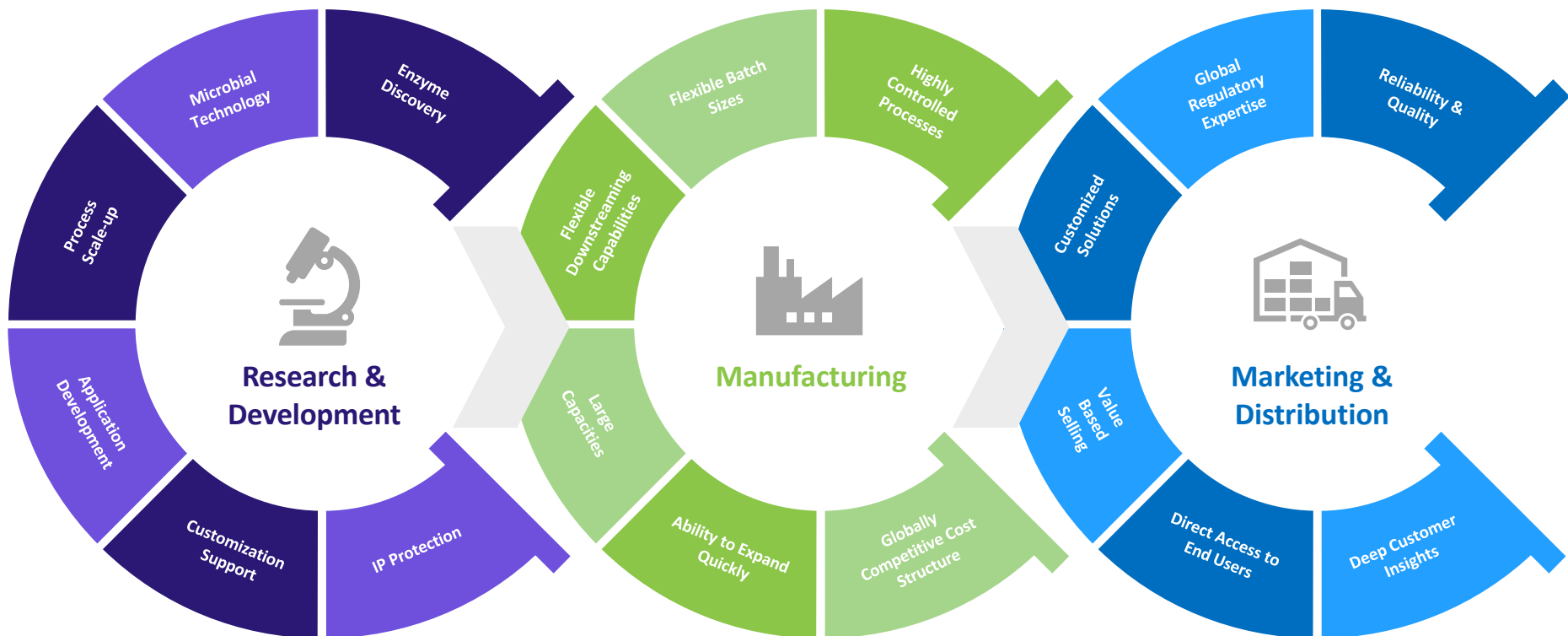


## Advanced Enzymes - A Unique Investment Case

# What Makes AETL a Unique Investment Case



# Integrated Player with Presence Across the Enzyme Value Chain





# Strong Research & Development Capabilities



## Proteomics & Applied Microbiology

- ◆ Purification & Characterisation of enzymes
- ◆ Generate data for filing regulatory dossiers
- ◆ Develop newer & improved microbial systems

## Process Development & Optimization

- ◆ Upscaling fermentation
- ◆ Enhance efficiency of downstream processes
- ◆ Improve recovery & purification yields

## Application Development

- ◆ Develop innovative enzyme solutions for various food & non-food processing industries
- ◆ Lab trials support for nutritional applications

## Laboratory Services

- ◆ Custom application development
- ◆ Testing services for customers

60+

Indigenously Developed Enzymes

11<sup>(3)</sup>

Food Enzymes Dossiers filed with EFSA<sup>(1)</sup>

65+

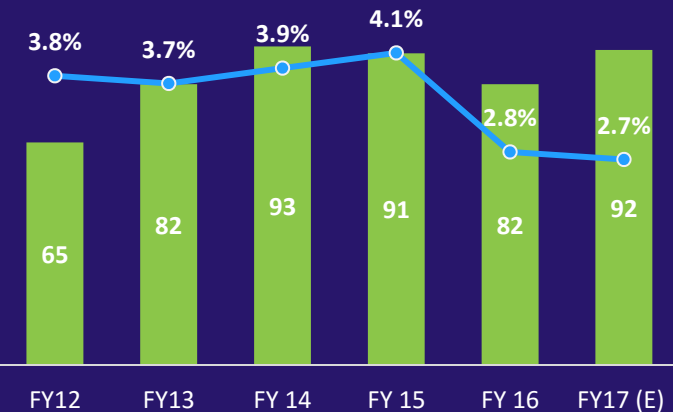
Scientists, Microbiologists, Engineers, Food Technologists, Biotechnologists

13<sup>(3)</sup>

Registered Patents  
4 Patent Application Submitted

(1) EFSA = European Food Safety Authority  
(2) On a Consolidated basis (in ₹ mn)  
(3) As on the date of RHP

Significant R&D Spend as % of Revenue<sup>(2)</sup>



# Specialized Business With High Entry Barriers

## Technocrat Promoters



Cumulative experience of 7+ decades in the global enzyme industry

## Sustained Research & Development



Consistent Investment into R&D over the past 15+ years

## Manufacturing Expertise



Specialized technical expertise in microbial fermentation developed over the last 22+ years

## Proven Enzyme Development Capabilities



Proven Expertise in Successfully Developing Enzymes; Journey from only 7 in 1994 to 60+ today

## Global Competitiveness



Amongst the Lowest Cost Manufacturers in the World (Benchmarked both in terms of Capex & Opex)

## Diverse Product Range & Customer Base



400+ Products, 700+ Customers Worldwide

## Credible Market Presence



Presence of more than 3 decades in the industry with prolonged & dedicated "enzyme" focus

## Invaluable Experience & Customer Insights



Decades of Experience in Solving Customer Problems, and Invaluable Product & Process Insights

**Highly Concentrated Industry with very few large players like Novozymes, Dupont, BASF, DSM**

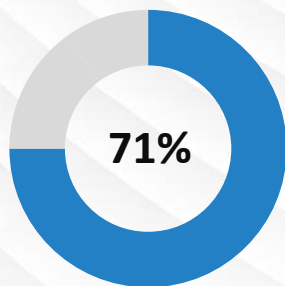


## Catering to Diversified Segments & Industries

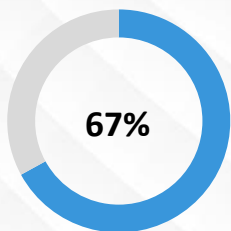
- ◆ Products & Offerings cater to a diverse set of industries across multiple segments such as Human Nutrition, Animal Nutrition & Bio-Processing
- ◆ Broad client base serving 700+ customers across 45+ countries worldwide

## Segment-Wise Revenue Breakup

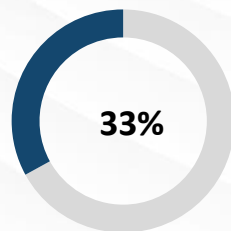
### Human Nutrition



Active Ingredient

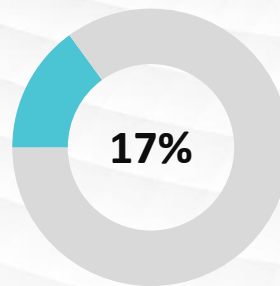


Nutraceuticals



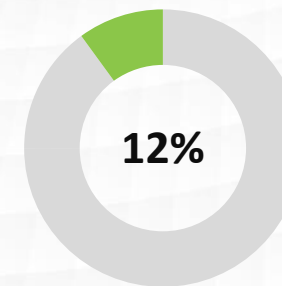
Pharmaceuticals

### Animal Nutrition

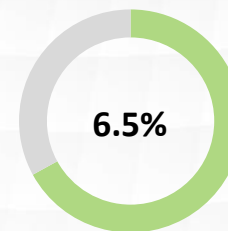


Feed Additive

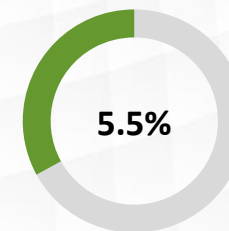
### Bio-Processing



Bio-Catalyst



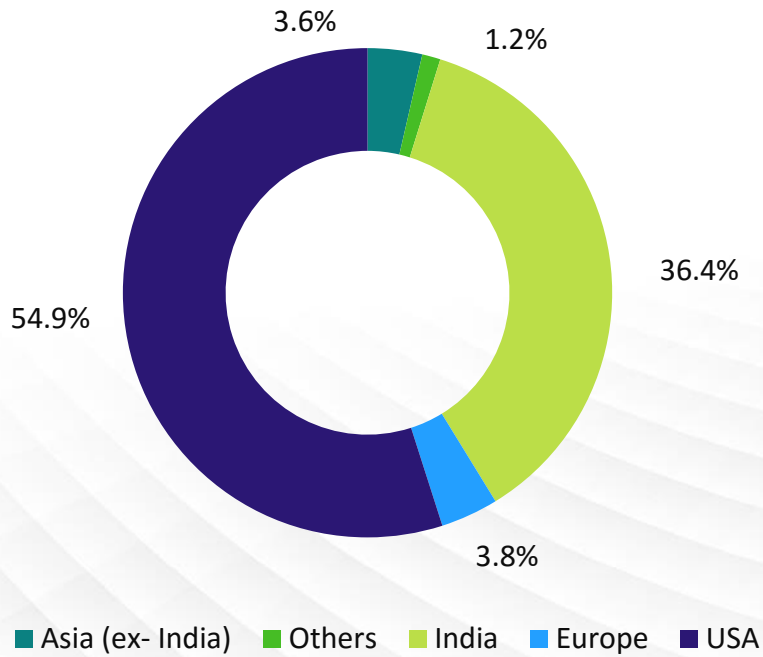
Food Processing



Non-Food Processing

Note: For the year ended March 31, 2016

# Significant Focus on International Markets & Brand Building



## Corporate Brand Building Through Participation in Global Trade shows



- ◆ Geographically diversified revenue base: 63.6% International Operations

**55+**

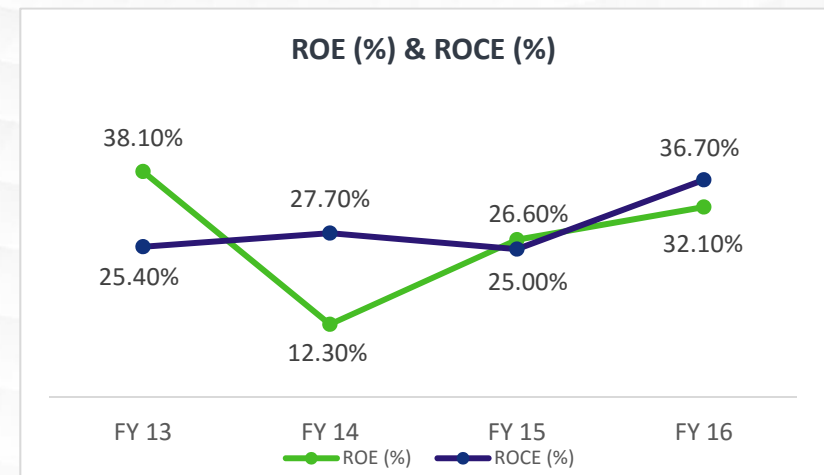
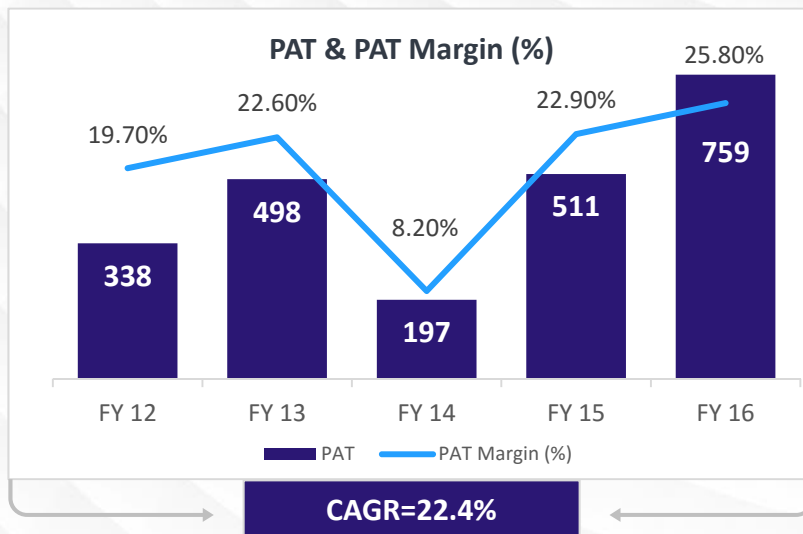
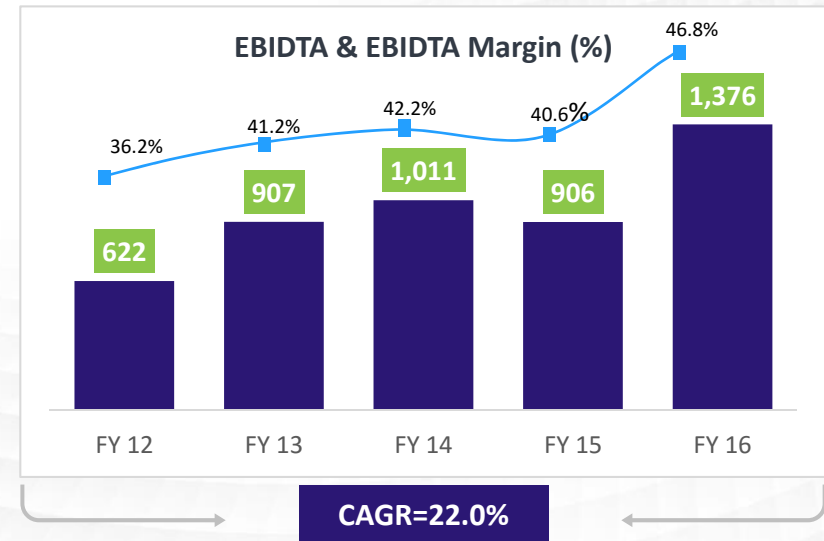
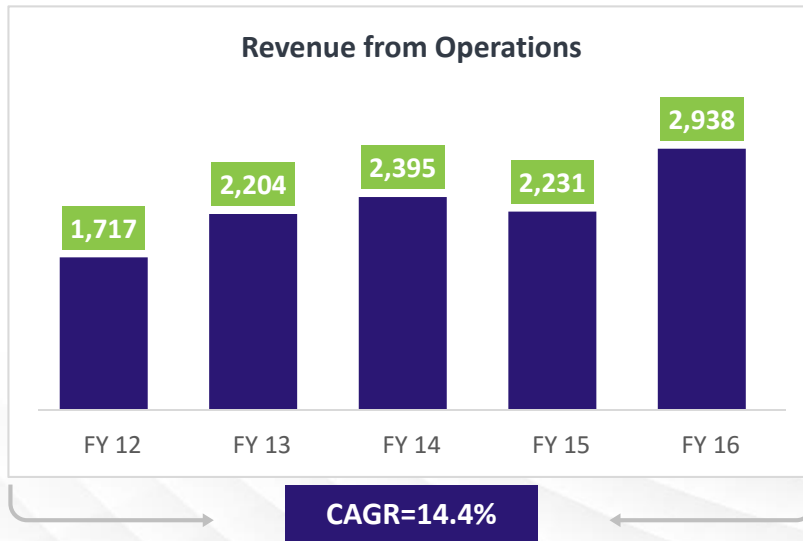
- ◆ Global Sales & Marketing Team

**70+**

- ◆ International Distributors

*\*For the year ended March 31, 2016*

# Strong Financial Performance



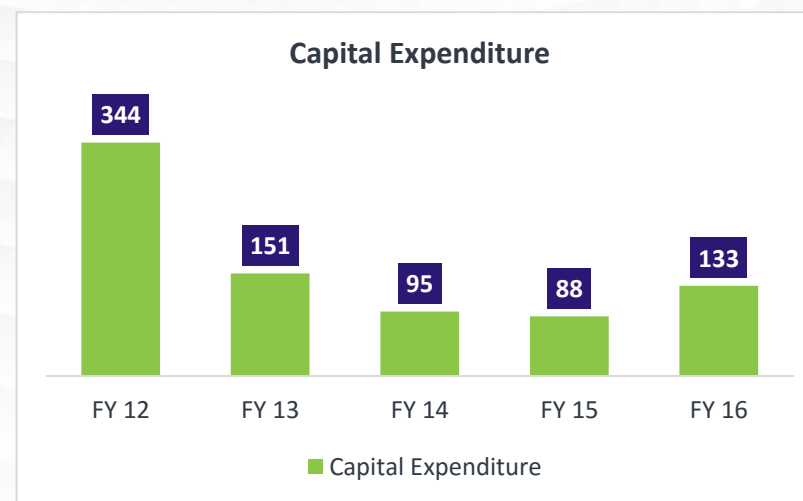
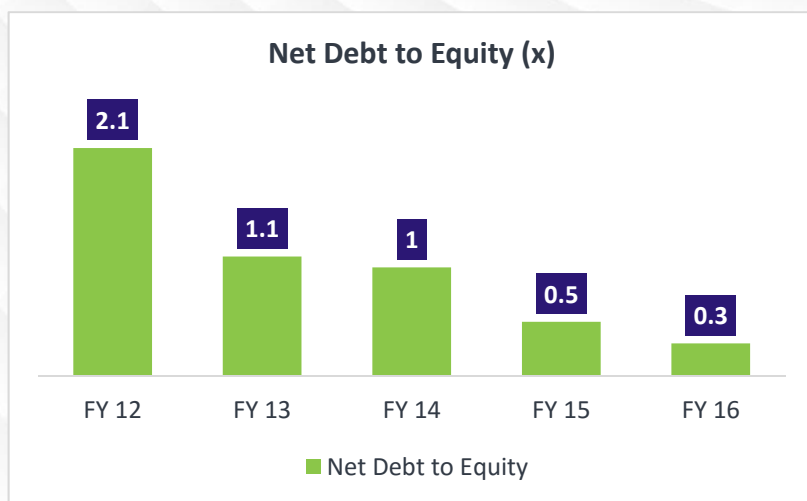
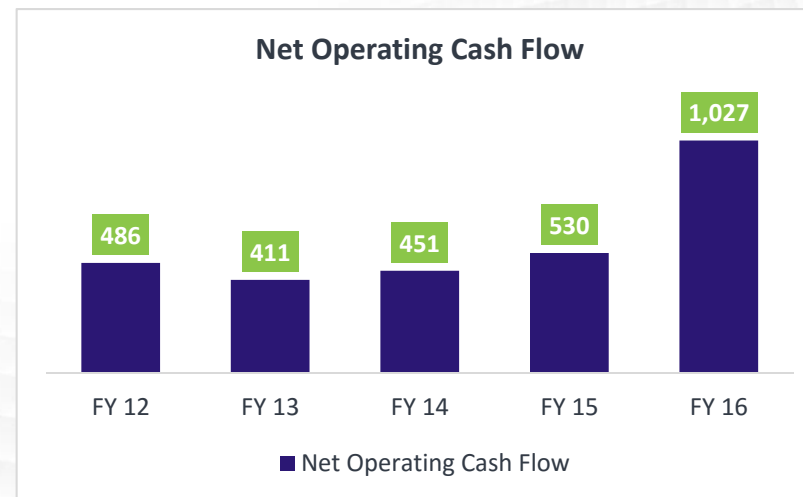
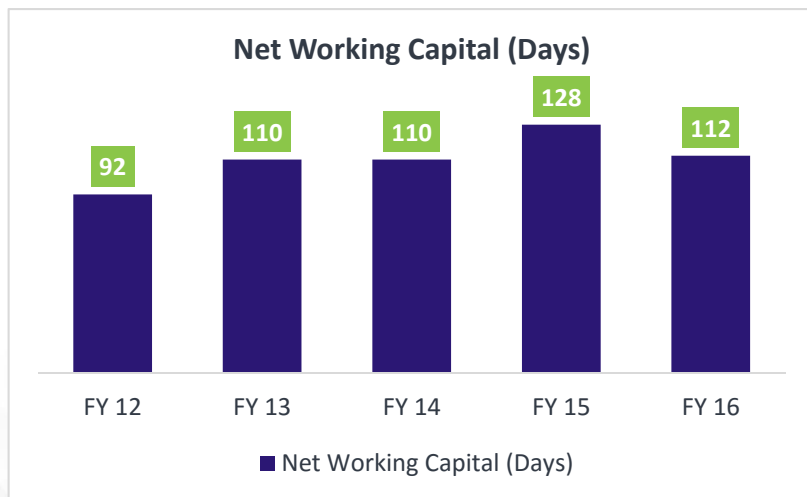
All numbers are on Consolidated basis

ROE = Profit after tax / Average shareholder equity; RoCE = (Net Profit before Tax, Exceptional and extraordinary items + Finance cost) / Average (Net debt + Network)





# Strong Financial Performance



All numbers are on Consolidated basis

Net working capital days =  $((\text{Trade receivables} + \text{inventories} - \text{Trade payables}) / \text{Revenue from operations}) * 365$

Net Debt = Long term debt + short term debt + current maturities of long term debt - Cash & Cash Equivalent










## Future Growth Strategies & Pipeline



# Key Strategies for Future Growth



# Application Pipeline

Industry	Area of Focus	USP	Geographical Focus	Market Potential
 <b>Animal Nutrition</b>	Productivity Enhancement	Powder & Liquid Blends	Global	\$500 mn+
 <b>Oils &amp; Fats Processing</b>	Palm Oil Extraction	First Mover, Patent Granted	Asia	\$700 mn+
 <b>BioDiesel</b>	Techno-Commercial Feasibility	Complete Technology Package	India	\$650 mn+ (India)
 <b>Washing Solutions</b>	Detergents	Organic & Chemical-Free Detergents	India & USA	\$200 mn+ (India)
 <b>BioCatalysis</b>	Green Technology for API Production	Technical Service & Low Cost Producer	India	To be mapped

# Application Pipeline – Current Status



Note: Company estimates subject to revision

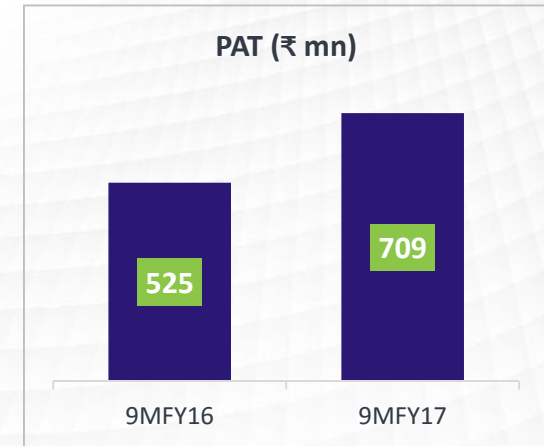
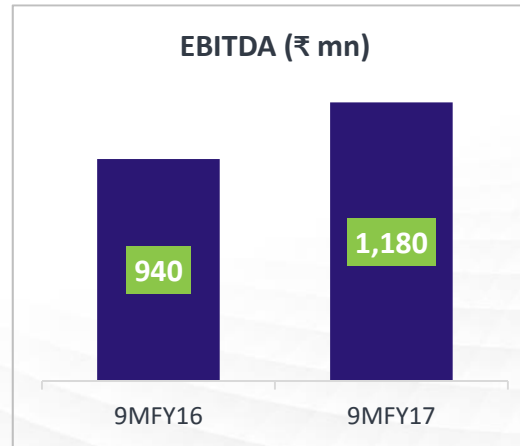
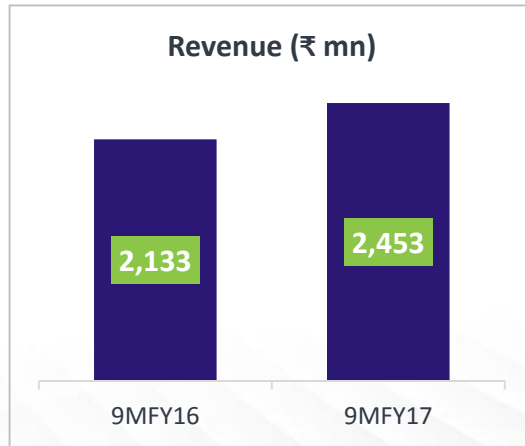


## Financial Overview





# Results Summary – 9MFY17



## Revenue Breakup

₹ in Million

\*YoY Growth

### Animal HC



### Human HC



### Food



### Industrial Processing



9MFY17

**348**

**1,770**

**178**

**157**

9MFY16

**358**

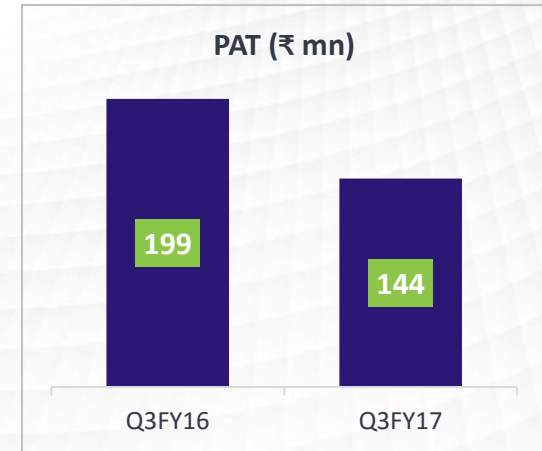
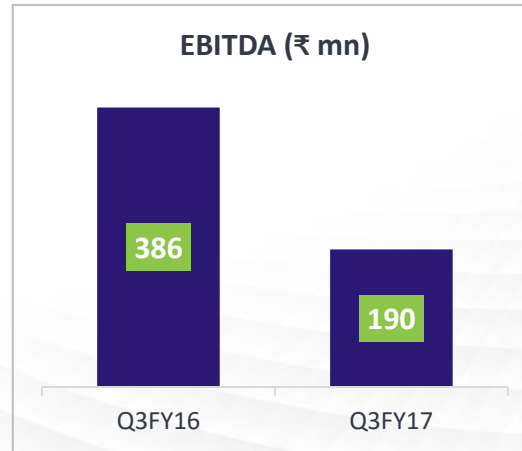
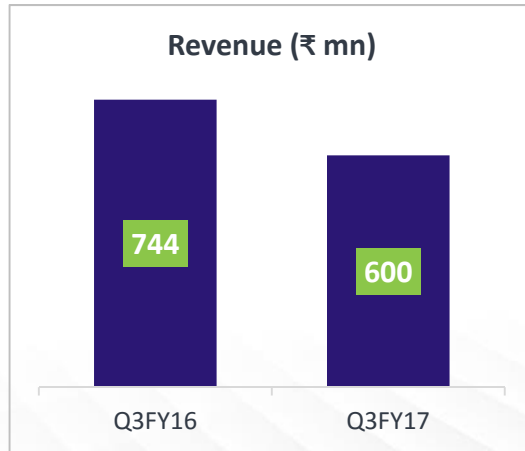
**1,481**

**153**

**141**

Note: On Consolidated Basis

# Results Summary – Q3FY17



## Revenue Breakup

₹ in Million

\*YoY Growth

### Animal HC



### Industrial Processing



### Food



### Human HC



Q3FY17

103

59

52

386

Q3FY16

136

46

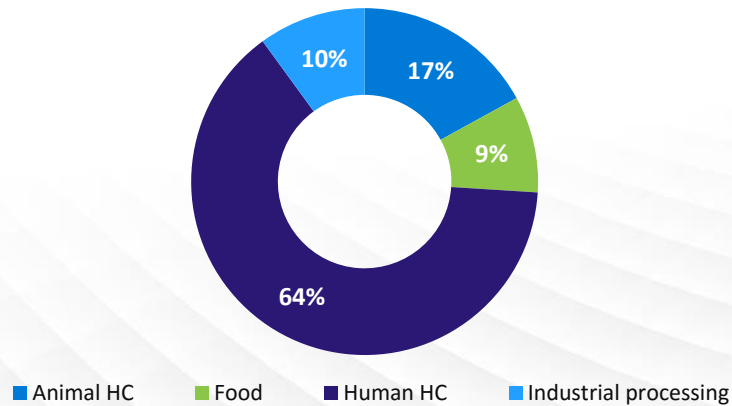
44

519

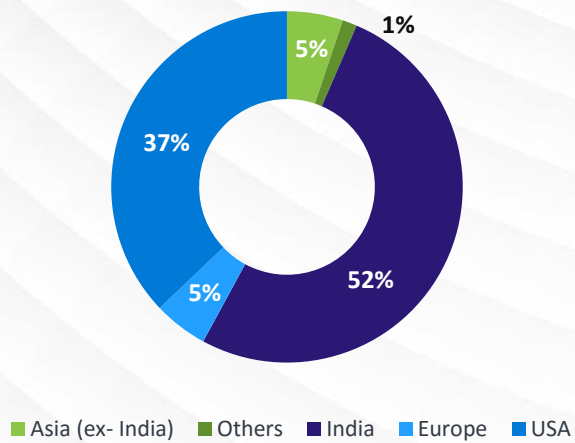
Note: On Consolidated Basis

## Q3FY17

Segmental Revenue Split (%)

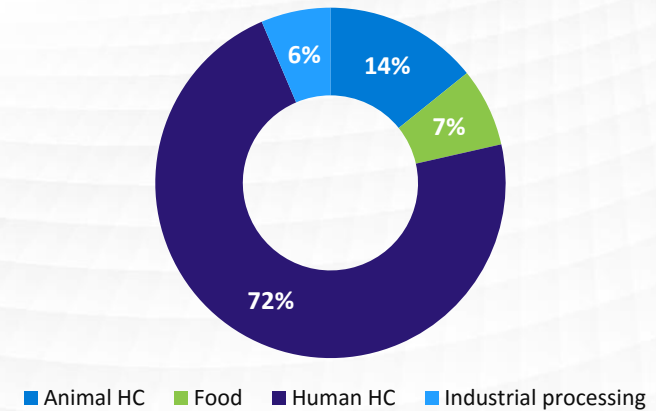


Geographical Revenue Split (%)

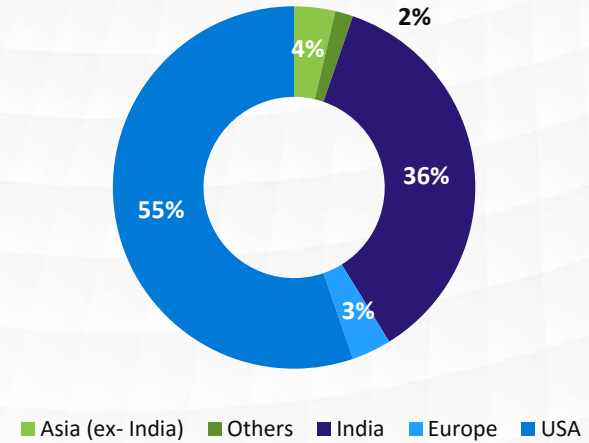


## 9MFY17

Segmental Revenue Split (%)



Geographical Revenue Split (%)



## Profit & Loss (Consolidated) – Q3FY17 & 9MFY17

Particulars	Q3FY17 Unaudited	Q2FY17 Unaudited	Q3FY16 Unaudited	Y-o-Y (%)	9MFY17 Unaudited	9MFY16 Unaudited	Y-o-Y (%)
Income from Operations	600	908	744	-19%	2,453	2,133	15%
Expenses	441	454	380	16%	1,363	1,217	12%
Profit from Operations before Other Income, Finance Costs and Exceptional Item	159	454	364	-56%	1,090	916	19%
Other Income	7	6	3	110%	17	7	132%
Profit from ordinary activities before Finance Costs and Exceptional Item	166	460	367	-55%	1,107	923	20%
Finance costs	3	9	14	-82%	30	61	-52%
Profit from ordinary activities before exceptional item and tax	163	451	353	-54%	1,077	862	25%
Exceptional item	-	-	(0)	-	-	(41)	-
Profit from ordinary activities before tax	163	451	352	-54%	1,077	821	31%
Tax expense	13	158	147		353	281	
Net Profit after tax for the period	150	293	205	-27%	724	540	34%
Earnings Per Share	6.51	13.17	9.15		32.09	24.10	

## Balance Sheet (Consolidated) – 9MFY17

Particulars	9MFY17	FY16
<b>EQUITY AND LIABILITIES</b>		
Share capital	223	218
Reserves and surplus	4,295	2,563
Minority interest	139	54
Long-term borrowings	281	388
Other - Non-current liabilities	200	176
Short-term borrowings	230	296
Trade payables	123	115
Other current liabilities	333	695
<b>TOTAL- EQUITY AND LIABILITIES</b>	<b>5,824</b>	<b>4,505</b>
<b>ASSETS</b>		
Fixed assets	4,210	2,924
Long-term loans and advances	217	180
Other non-current assets	7	4
Inventories	687	605
Trade receivables	469	418
Cash and bank balances	73	263
Other current assets	161	111
<b>TOTAL- ASSETS</b>	<b>5,824</b>	<b>4,505</b>



# Consolidated Balance Sheet

All figures in ₹ mn	As at March 31,				
	2012	2013	2014	2015	2016
<b>Equity and Liabilities</b>					
Share Capital	207	218	218	218	218
Reserves & Surplus	761	1,416	1,457	1,902	2,563
Non Current Liabilities	1,461	1,300	1,024	688	563
Current Liabilities	1,048	1,019	1,326	1,306	1,107
Minority Interest	16	24	36	45	54
<b>Total Liabilities</b>	<b>3,493</b>	<b>3,977</b>	<b>4,061</b>	<b>4,159</b>	<b>4,505</b>
<b>Assets</b>					
Fixed assets	2,646	2,887	2,884	2,914	2,924
Long-term loans and advances	78	67	78	160	180
Other non-current assets	2	86	179	45	4
Inventories	291	446	499	526	605
Trade receivables	323	388	324	370	418
Cash and bank balances	53	37	26	43	263
Other current assets	100	66	71	101	111
<b>Total Assets</b>	<b>3,493</b>	<b>3,977</b>	<b>4,061</b>	<b>4,159</b>	<b>4,505</b>



# Consolidated Profit & Loss Statement

All figures in ₹ mn	For the year ended March 31,				
	2012	2013	2014	2015	2016
Revenue from operations	1,717	2,204	2,395	2,231	2,938
Cost of materials consumed	478	511	471	477	590
<b>Gross Profit</b>	<b>1,239</b>	<b>1,693</b>	<b>1,924</b>	<b>1,754</b>	<b>2,348</b>
<b>Gross Profit Margin (%)</b>	<b>72.2%</b>	<b>76.8%</b>	<b>80.3%</b>	<b>78.6%</b>	<b>79.9%</b>
Employee benefit expense	201	269	328	365	445
Other expenses	416	517	585	483	527
<b>EBITDA</b>	<b>622</b>	<b>907</b>	<b>1,011</b>	<b>906</b>	<b>1,376</b>
<b>EBITDA Margin (%)</b>	<b>36.2%</b>	<b>41.2%</b>	<b>42.2%</b>	<b>40.6%</b>	<b>46.8%</b>
Depreciation	55	74	100	90	87
Finance Costs	122	96	132	93	79
Other income	33	36	19	26	13
Exceptional Items/ Extraordinary Items	2	0	514	0	41
Tax expense	135	264	74	230	414
Share of Minority interest	3	11	13	8	9
<b>Profit after tax</b>	<b>338</b>	<b>498</b>	<b>197</b>	<b>511</b>	<b>759</b>
<b>PAT Margin (%)</b>	<b>19.7%</b>	<b>22.6%</b>	<b>8.2%</b>	<b>22.9%</b>	<b>25.8%</b>

# Consolidated Cash Flow Statement

All figures in ₹ mn	For the year ended March 31,				
	2012	2013	2014	2015	2016
Profit before tax	477	760	278	738	1,225
Adjustments for non-cash transactions	57	79	128	97	87
Interest expenses	117	90	89	80	67
Changes in working capital	(32)	(258)	155	(115)	(77)
Income taxes paid	(125)	(254)	(194)	(264)	(270)
<b>Net Cash flows from operating activities (A)</b>	<b>486</b>	<b>411</b>	<b>451</b>	<b>530</b>	<b>1,027</b>
Net purchase of tangible assets	(344)	(151)	(95)	(92)	(133)
Net purchase of intangible assets	(1,547)	(161)	(14)	(38)	(13)
<b>Net Cash flows from investing activities (B)</b>	<b>(1,887)</b>	<b>(308)</b>	<b>(105)</b>	<b>(109)</b>	<b>(139)</b>
Net borrowings	1,413	(210)	(86)	(262)	(514)
Interest paid	(117)	(90)	(89)	(80)	(75)
<b>Net Cash flows from financing activities (C)</b>	<b>1,284</b>	<b>(32)</b>	<b>(215)</b>	<b>(359)</b>	<b>(616)</b>
<b>Net (decrease) / increase in cash and cash equivalents (A + B + C)</b>	<b>(117)</b>	<b>71</b>	<b>131</b>	<b>62</b>	<b>272</b>



# Shareholder Information



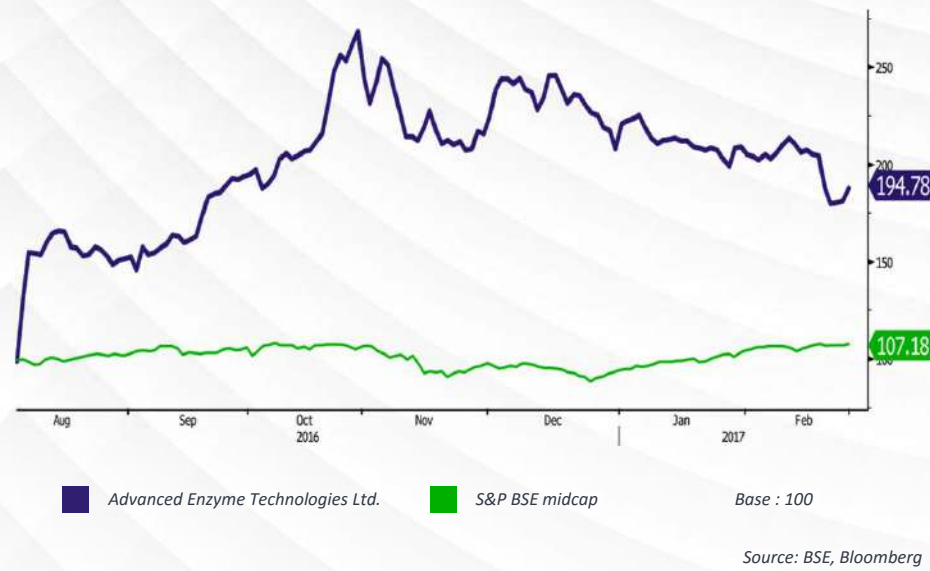
## Stock Data (As on 1st March 2017)

	Market Capitalization (₹)	38,964mn
	Shares Outstanding	22.3mn
	Free Float	6.5mn
	Symbol (NSE/BSE)	ADVENZYMES/ 540025
	Average Daily Volume	47,801

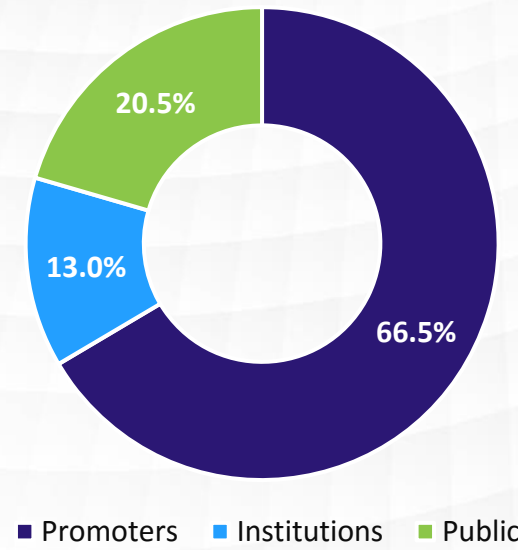
## Top Institutional Holders (As on 24<sup>th</sup> February 2017)

Institutions	% Shares Outstanding
Motilal Oswal Most Focused Multicap 35 Fund	2.26
DSP Blackrock Micro Cap Fund	1.72
Reliance Small Cap Fund	1.21
DSP Blackrock Focus 25 Fund	1.01
Nomura India Stock Mother Fund	0.76

## Stock Performance (As on 1st March 2017)



## Shareholding Pattern (%) (As on 24<sup>th</sup> February 2017)

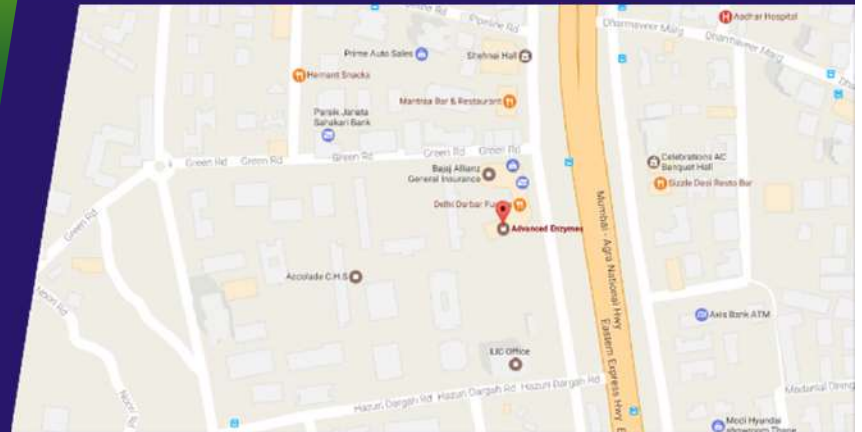




Thank You



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