

Where ENZYME is life



Advanced Enzyme Technologies Limited

Investor Presentation | May 2017

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.



Mr. Vasant Rathi

Chairman and Non-Executive Director

Mr. Vasant Laxminarayan Rathi is the Promoter Chairman and Non-Executive 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.



Mr. Kedar Desai

Independent Director

Mr. Kedar Jagdish Desai, is the 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.



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. 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.



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

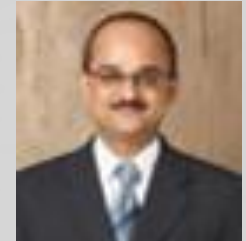
Mr. Beni Prasad Rauka, a Chartered Accountant and Company Secretary by qualification, brings with him a rich experience of over 24 years in the Finance Industry. Mr. Rauka has worked with Category I Merchant Banking firms and finance companies in his long standing career. Mr Rauka joined Advanced Enzymes 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*

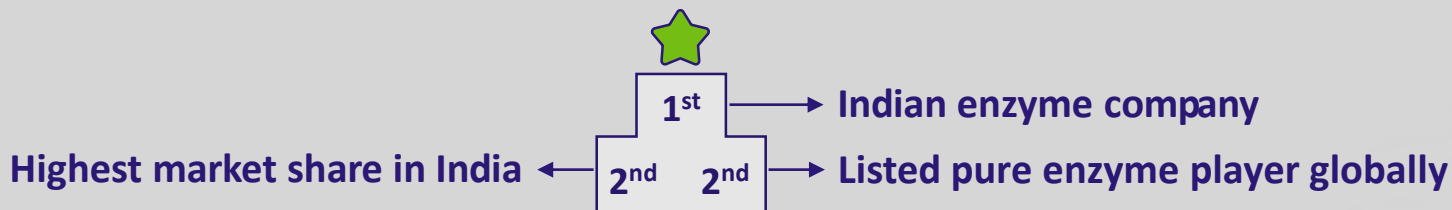
Dr. Anil Gupta is a Ph.D. in Microbiology with over 18 years of experience in Industrial Biotechnology. Prior to his joining Advanced Enzymes, he also received the coveted Young Scientist Award Project from Department of Science & Technology, Govt. Of India and has worked as Principal Investigator in 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.



Amongst Top 15 Global Enzyme Companies



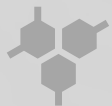
Manufacturing Units – 7

India - 5 USA - 2



R&D Units – 5

India - 4 USA - 1



65+

Indigenously Developed Enzymes & Probiotics



400+

Proprietary Products



700+

Customers Worldwide



45+

International Presence



22+

Years of Fermentation Experience



13

Registered Patents*



11

Food Enzyme Dossiers filed with EFSA*



1

GRAS Dossier filed with US FDA



420

m³ Fermentation Capacity



500+

Employees

Revenue (₹ mn)

CAGR=11%

2,204

FY 2013

3,314

FY 2017

EBIDTA (₹ mn)

CAGR=12%

943

FY 2013

1,530

FY 2017

PAT (₹ mn)

CAGR=16%

509

FY 2013

924

FY 2017

* As on the date of RHP



International Presence

Manufacturing Facilities – 7

INDIA

Thane	1
Nasik	2
Indore	1
Ongole	1

USA

Chino	2
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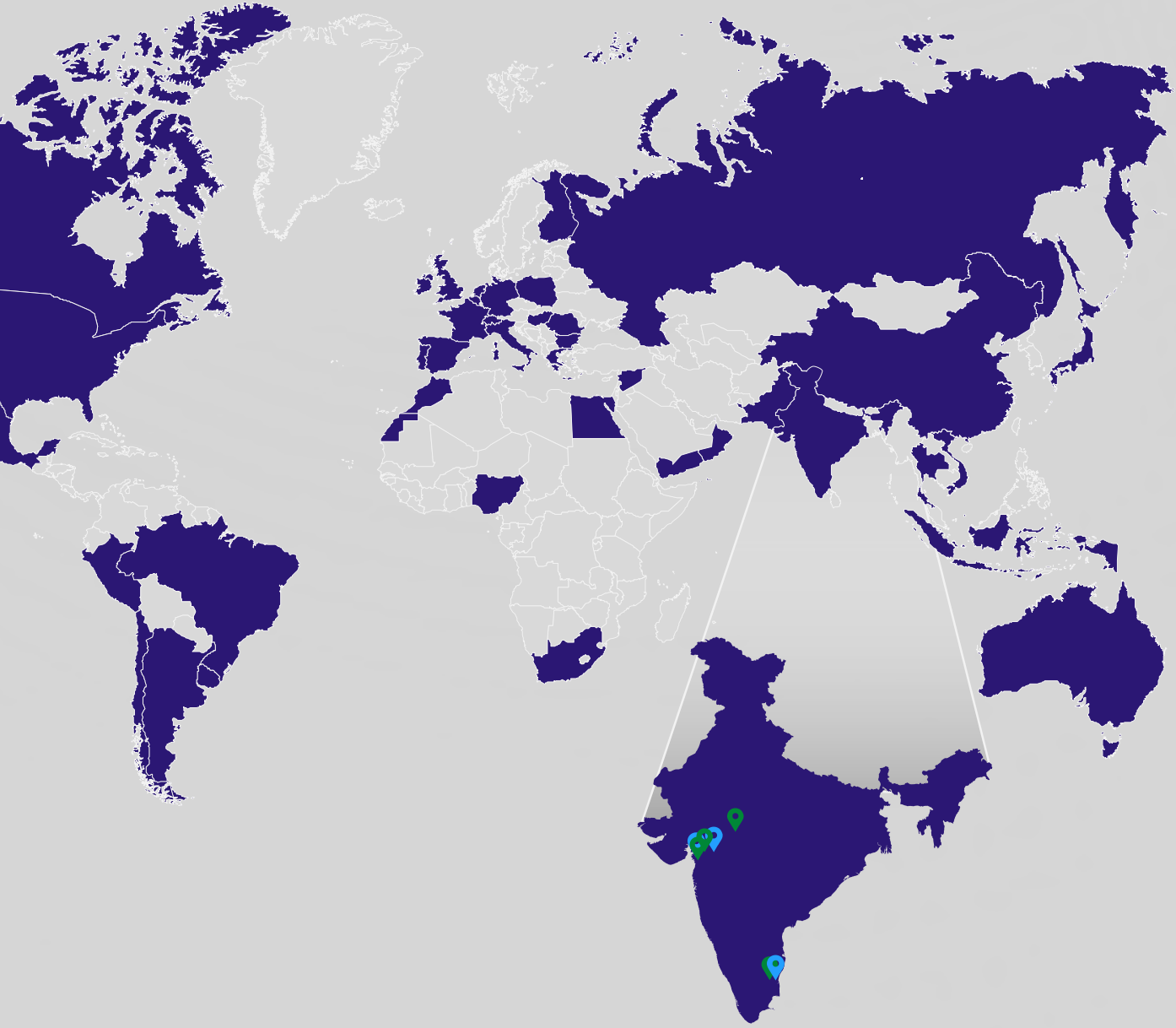
R&D Centres - 5

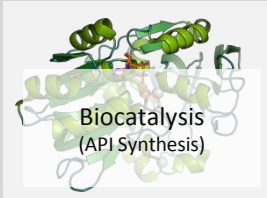
INDIA

Thane	2
Sinnar	1
Ongole	1

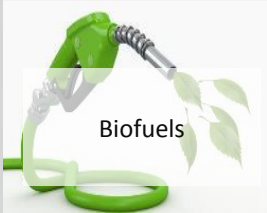
USA

Chino	1
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Biocatalysis
(API Synthesis)



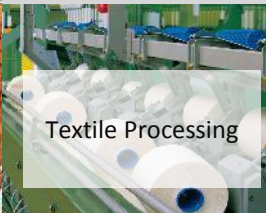
Biofuels



Leather
Processing



Protein
Modification



Textile Processing



Yeast Processing



Brewing



Oil & Fat
Processing

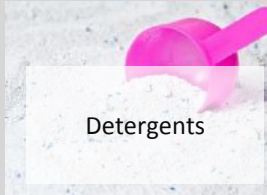


Starch & Grain
Processing

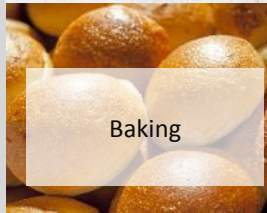


Fruits & Veg.
Processing

- ◆ 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



Detergents



Baking



Dairy & Cheese
Processing

Advanced Enzyme Technologies Ltd. (AETL)

60%⁽¹⁾

Advanced Bio-Agro Tech Ltd

- ◆ Animal Feed Products
- ◆ Agro Products
- ◆ Focus on South Asia

100%⁽²⁾

Advanced EnzyTech Solutions Ltd

- ◆ Eco-friendly Solutions
- ◆ Non-food industries
- ◆ Focus on South Asia

100%

Advanced Enzymes USA Inc.

70%

JC Biotech Private Ltd

- ◆ Complimentary Production Capabilities

100%

Advanced Supplementary Technologies Corp.

- ◆ Systemic enzyme supplements
- ◆ Targeted at Health-care professionals

100%

Cal-India Foods International

- ◆ Business-to-Business
- ◆ Custom-formulated enzymes

100%

Dynamic Enzymes, Inc.

- ◆ Enzyme supplements
- ◆ Retail focused

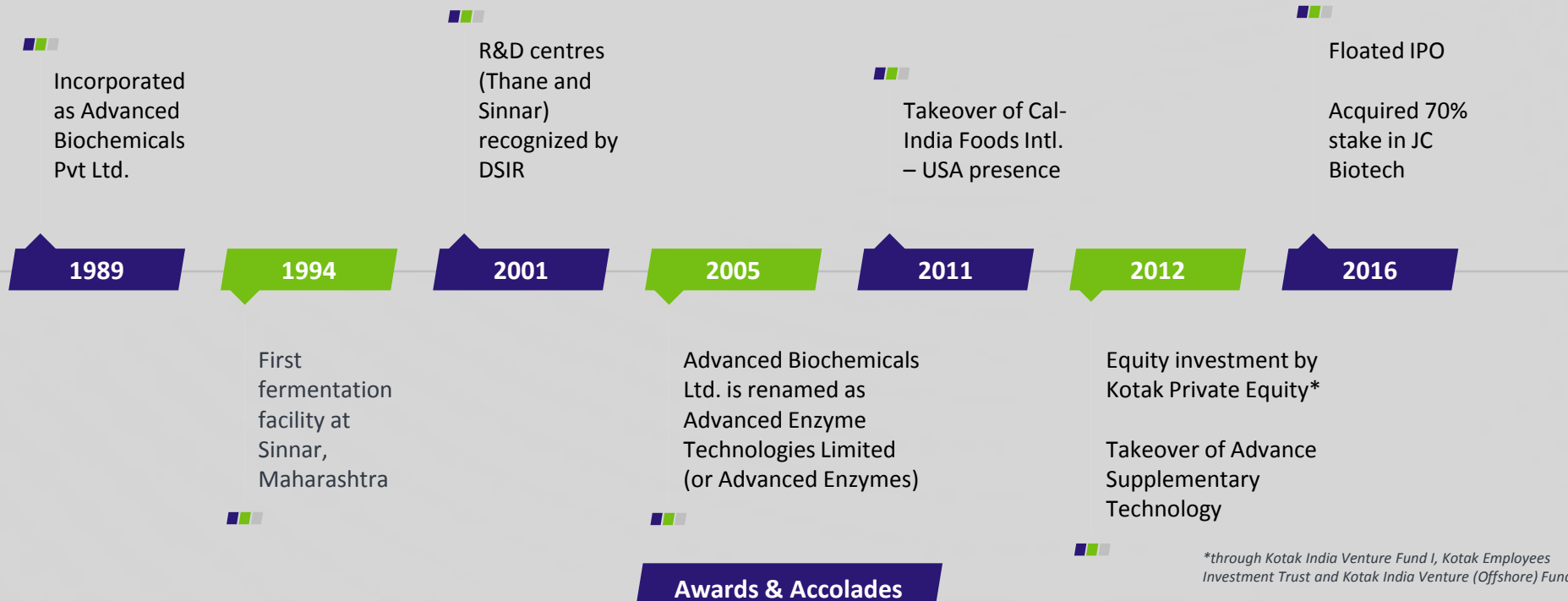
100%

Enzyme Innovation, Inc

- ◆ Marketing of Animal Nutrition & Bio-processing Solutions
- ◆ Focus on Americas

(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

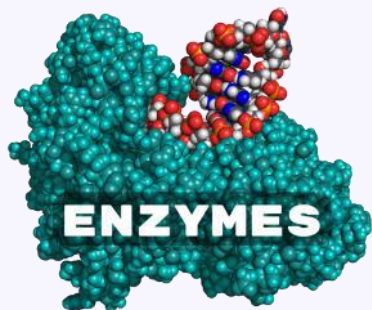
◆ Best Nutraceutical Company of the Year

◆ Biotech Leader of the Decade



Global Enzyme Market

Usage of Enzymes



Enzymes

Industrial Enzymes

- ◆ High volume, low value-added application

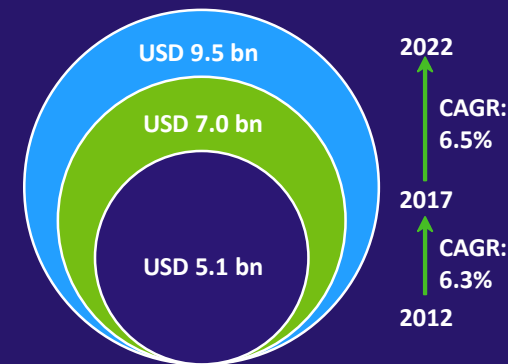
Specialty Enzymes

- ◆ Low volume, high value-added application

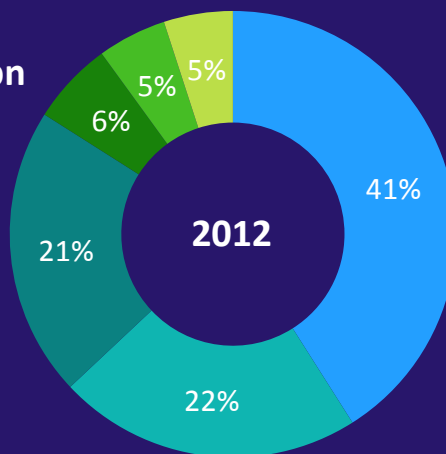
World Enzyme Demand by Region

- ◆ 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%

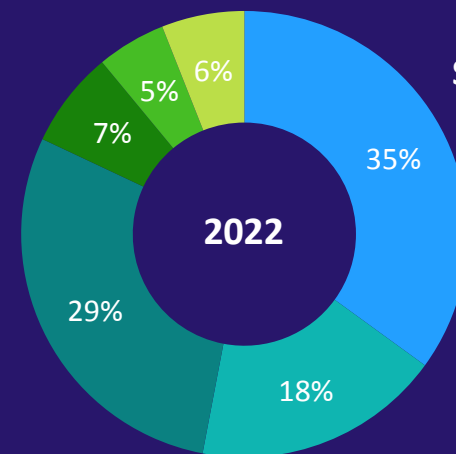
Global Market Size



\$ 5.1 bn



\$ 9.5 bn



■ North America
 ■ Asia /Pacific
 ■ Western Europe
 ■ Central & South America
 ■ Eastern Europe
 ■ Africa & Mideast

Source: Freedonia Report

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



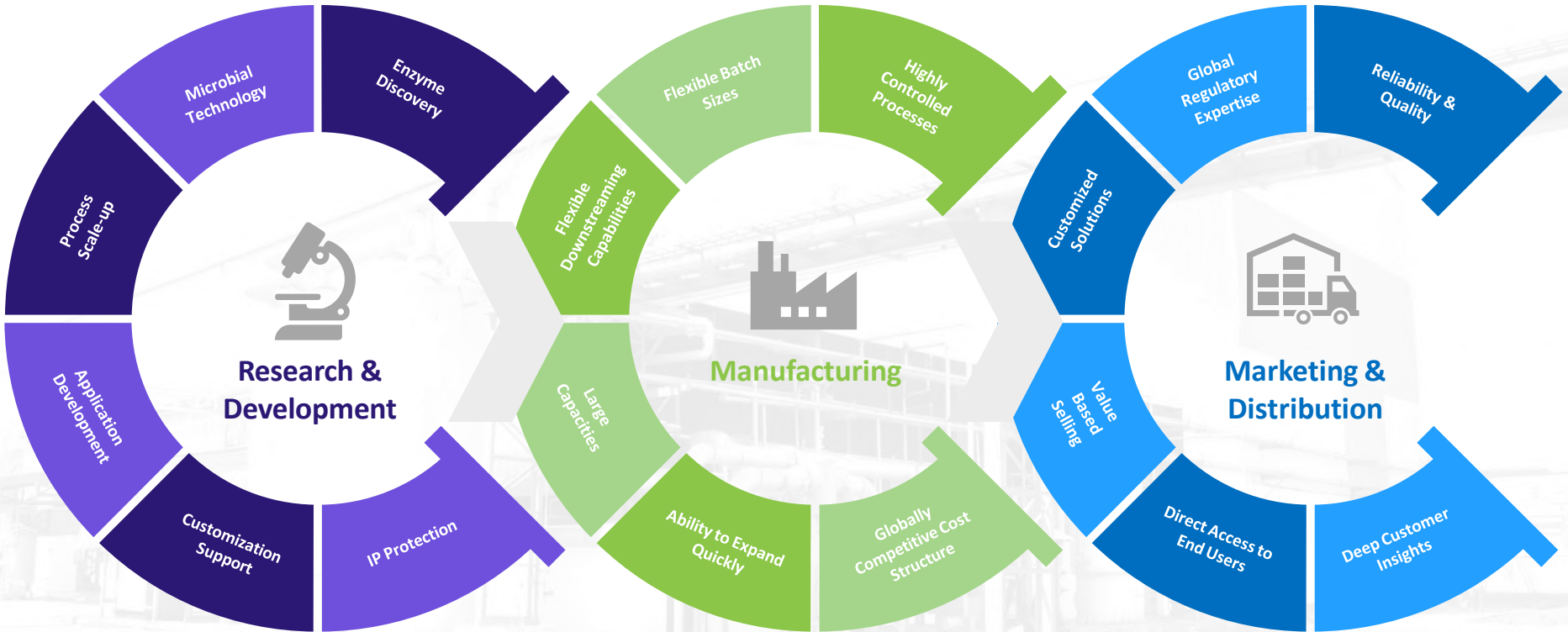
Advanced Enzymes - A Unique Investment Case



Unique Investment Case



Integrated Player with Presence Across the Enzyme Value Chain



Strong Research & Development Capabilities



Proteomics & Applied Microbiology

Process Development & Optimization

Application Development

Laboratory Services

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

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

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

- ◆ Custom application development
- ◆ Testing services for customers

65+

Indigenously Developed Enzymes & Probiotics

11⁽³⁾

Food Enzymes Dossiers filed with EFSA⁽¹⁾

65+

Scientists, Microbiologists, Engineers, Food Technologists, Biotechnologists

13⁽³⁾

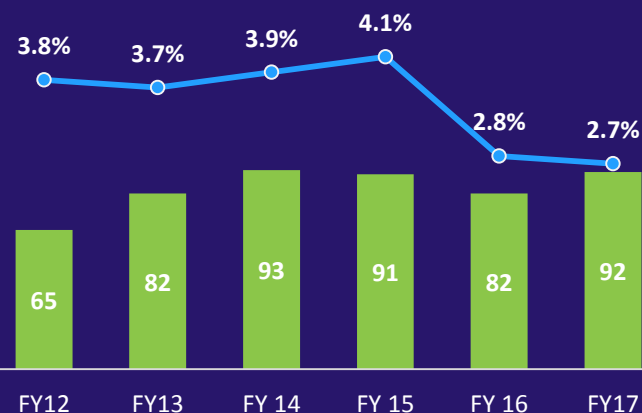
Registered Patents
4 Patent Application Submitted

1

GRAS Dossier filed with US FDA

(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⁽²⁾



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

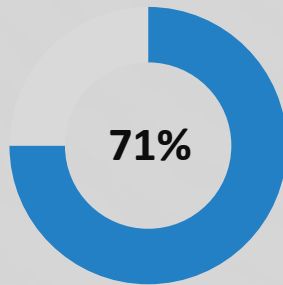


Catering to Diversified Segments & Industries

- ◆ 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

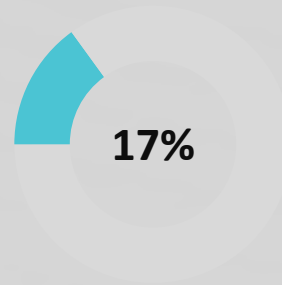
Segment-Wise Revenue Breakup

Human Nutrition



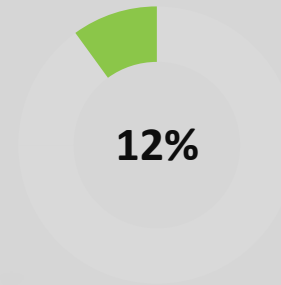
Active Ingredient

Animal Nutrition



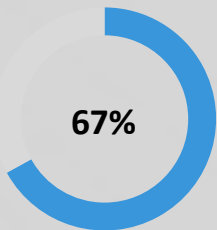
Feed Additive

Bio-Processing



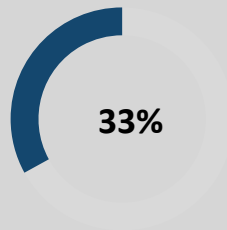
Bio-Catalyst

67%



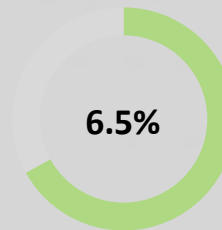
Nutraceuticals

33%



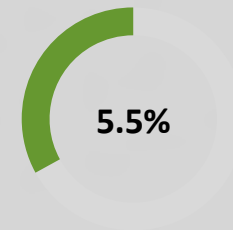
Pharmaceuticals

6.5%



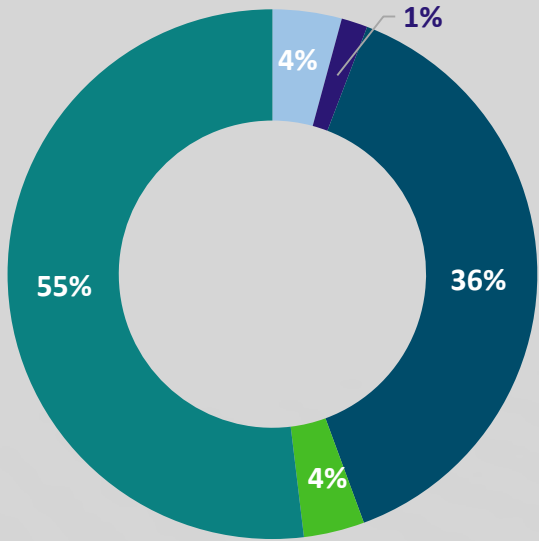
Food Processing

5.5%



Non-Food Processing

Note: For the year ended March 31, 2016



■ Asia (ex-India) ■ Others ■ India ■ Europe ■ USA

Corporate Brand Building Through Participation in Global Trade shows



◆ Geographically diversified revenue base: 63.6% International Operations

55+

◆ Global Sales & Marketing Team

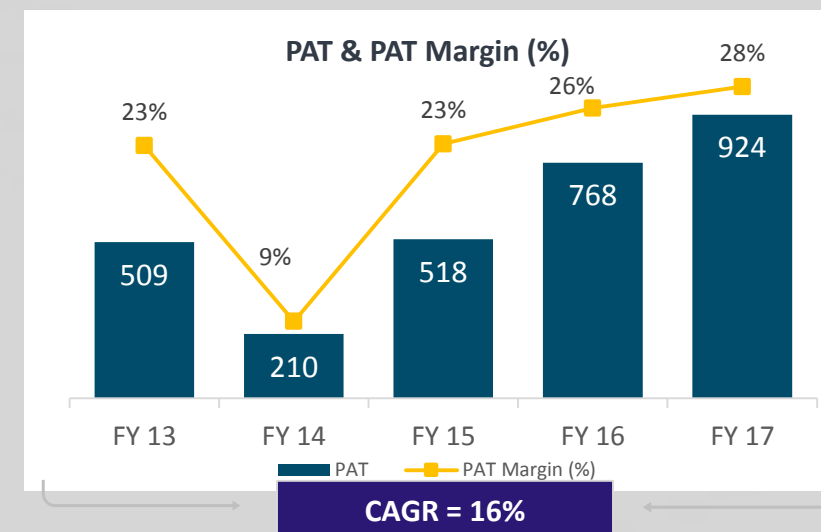
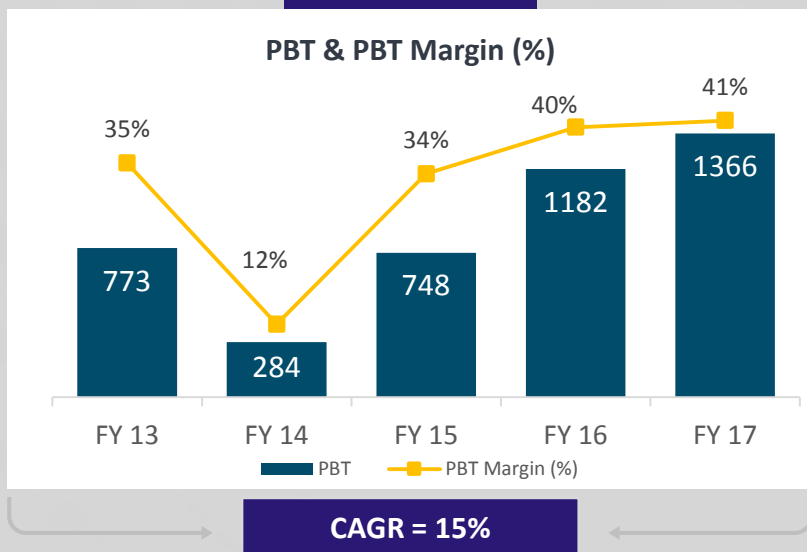
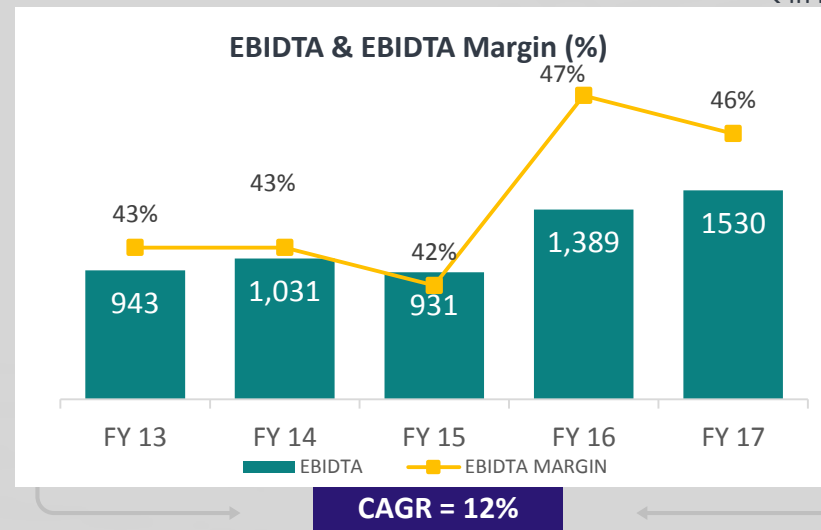
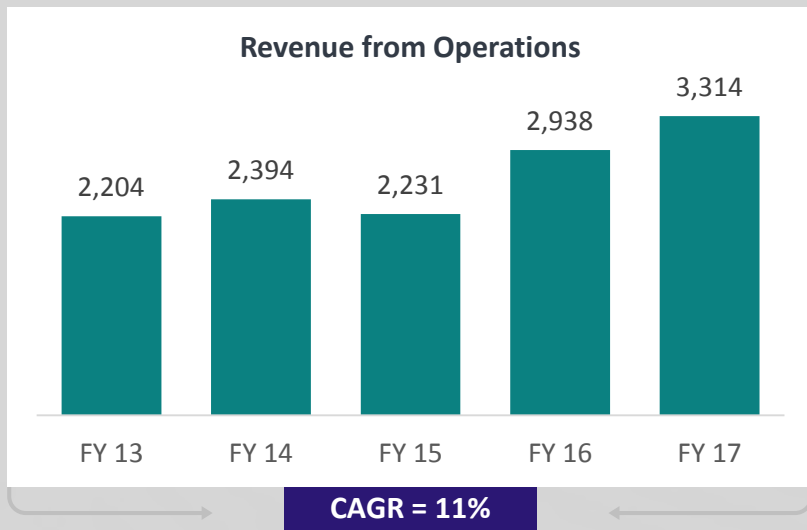
70+

◆ International Distributors

**For the year ended March 31, 2016*

Strong Financial Performance

₹ in Million

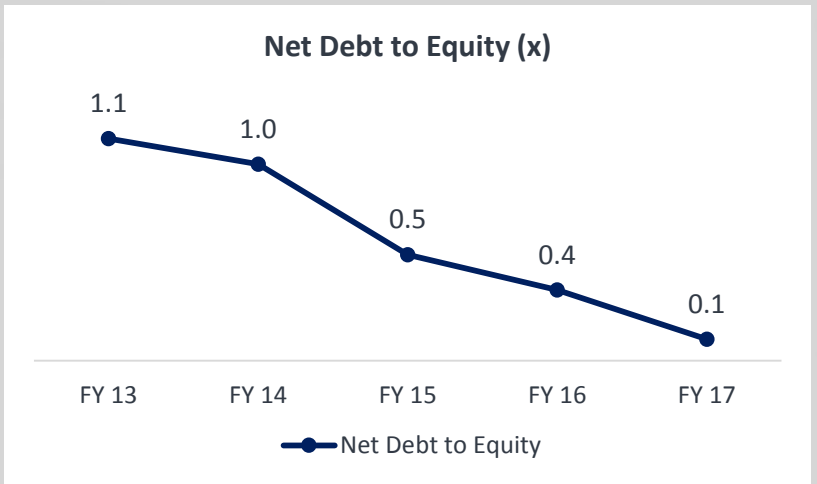
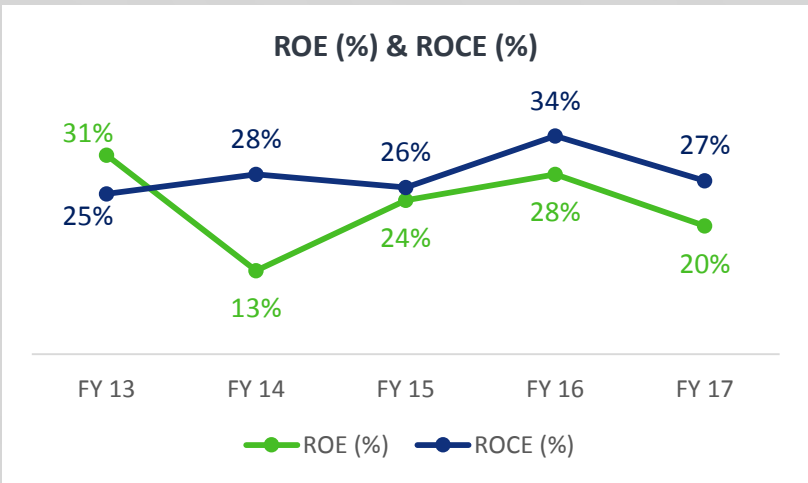
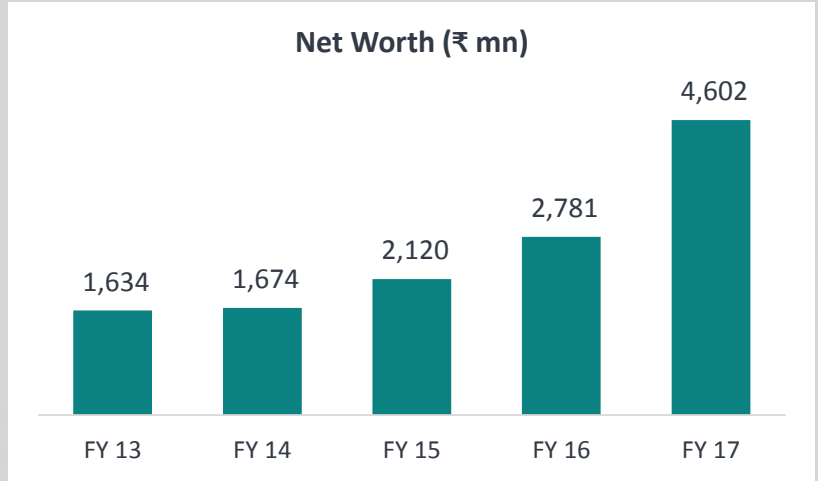
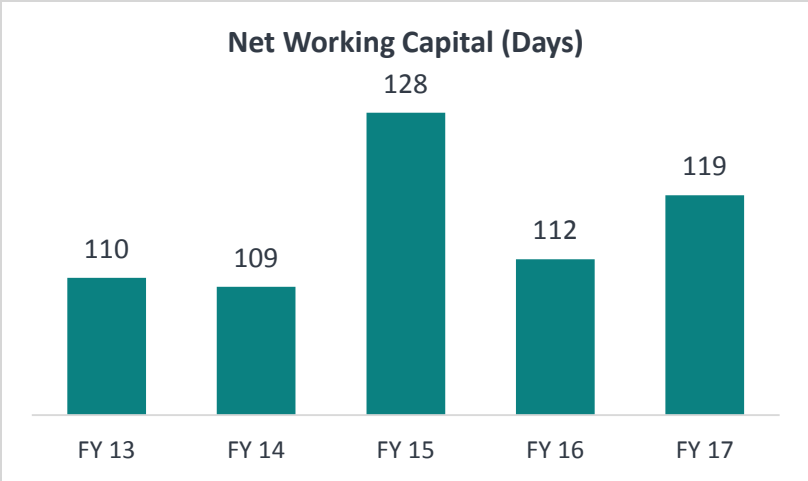


All numbers are on Consolidated basis

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

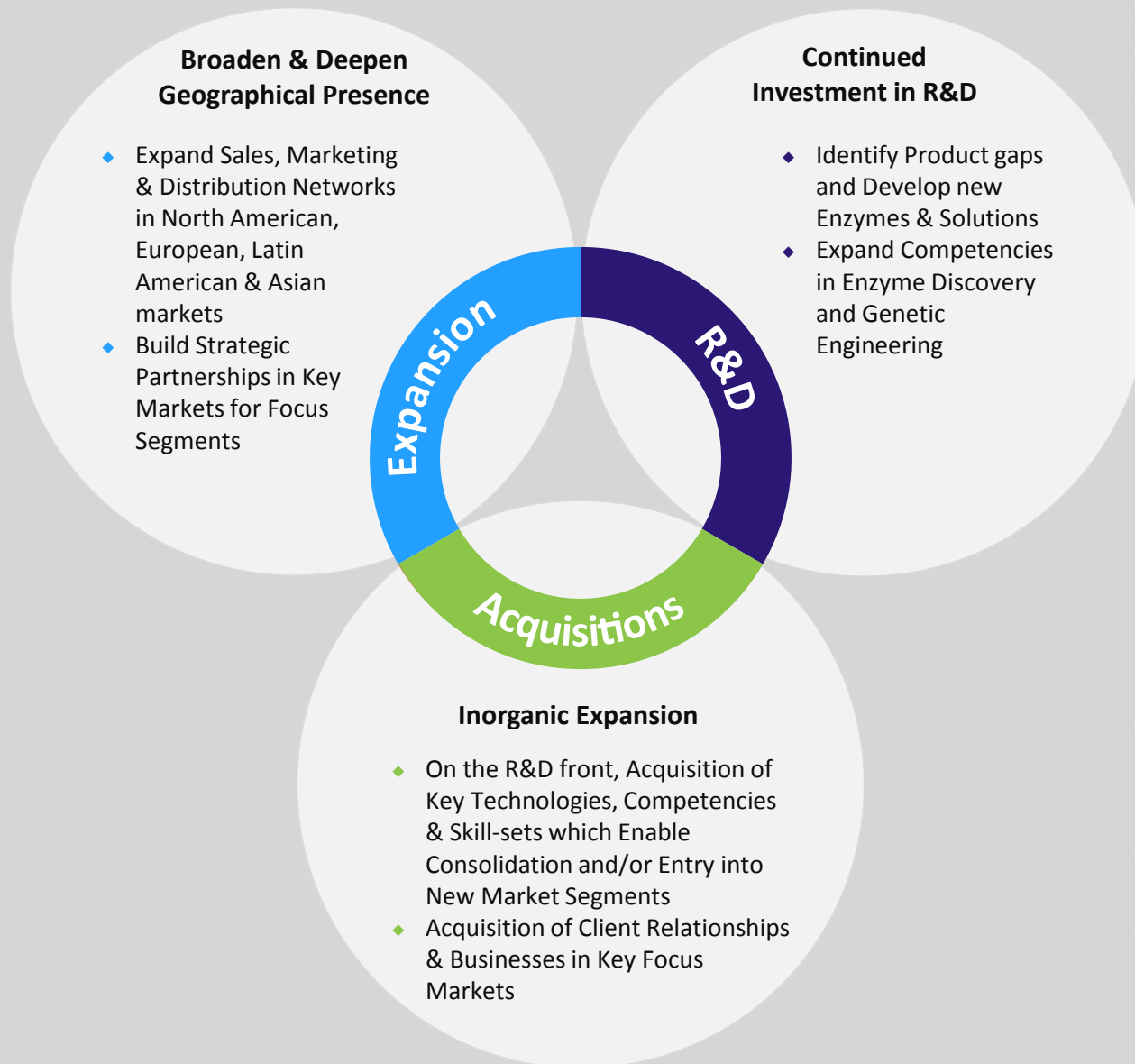
₹ in Million








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

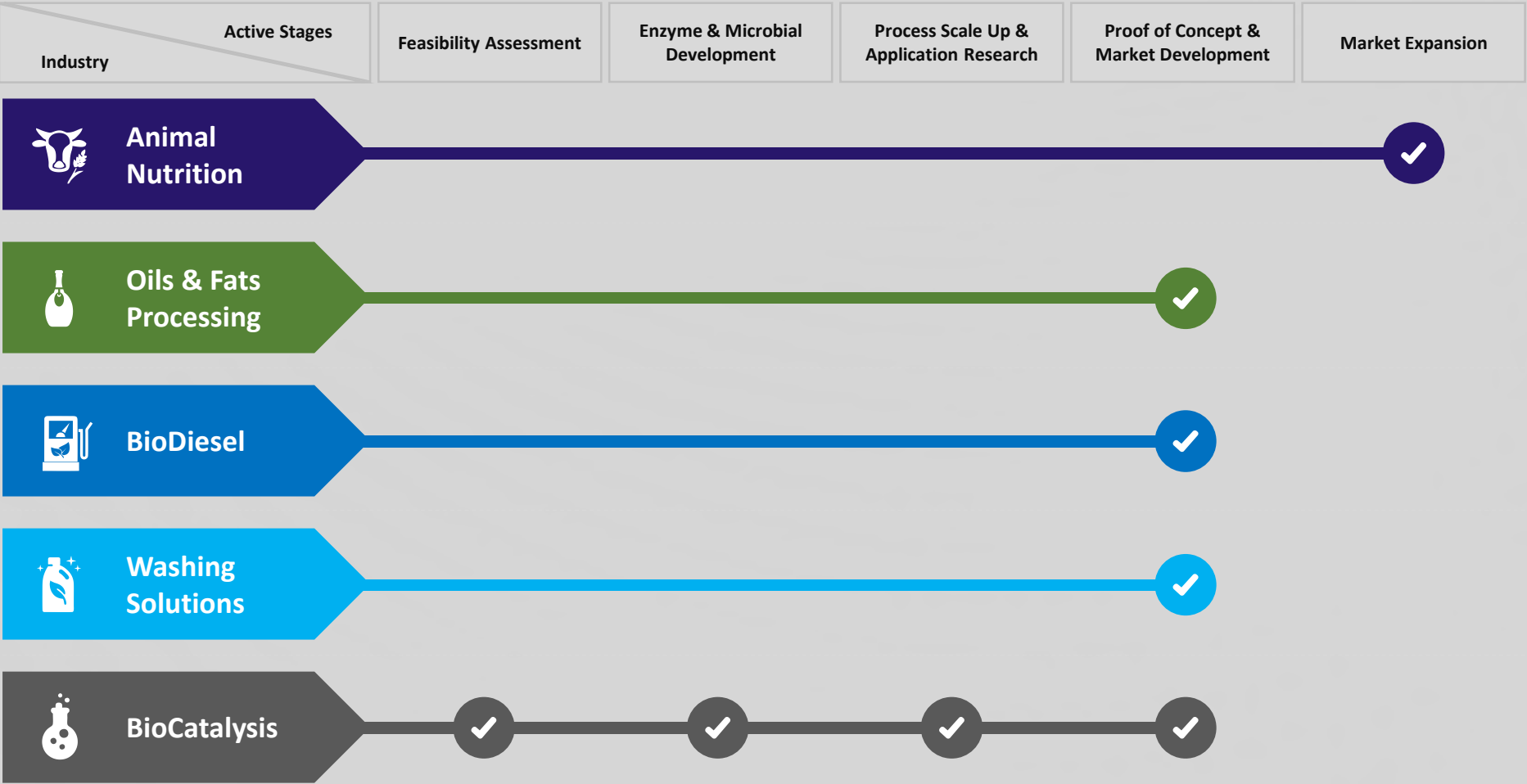


Application Pipeline

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

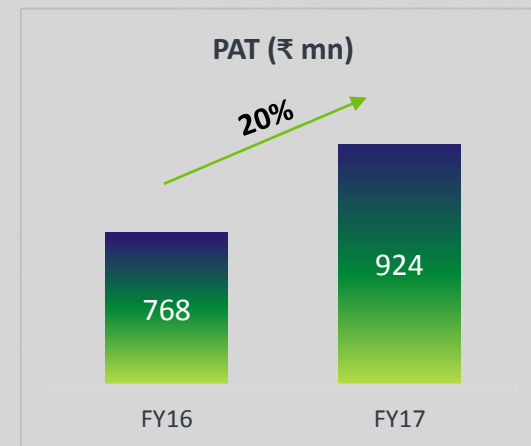
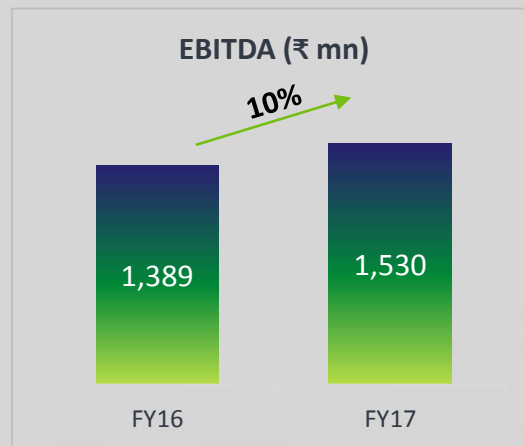
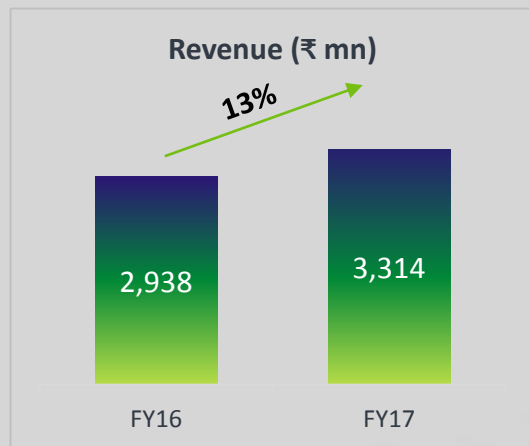
Note: Company estimates subject to revision

Application Pipeline – Current Status





Financial Overview

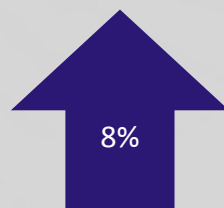


Revenue Breakup

₹ in Million

*YoY Growth

Animal HC



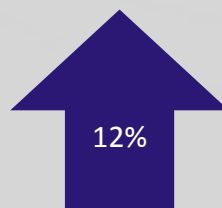
FY17

512

FY16

474

Human HC



2,386

2,137

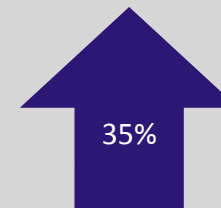
Food



223

184

Industrial Processing



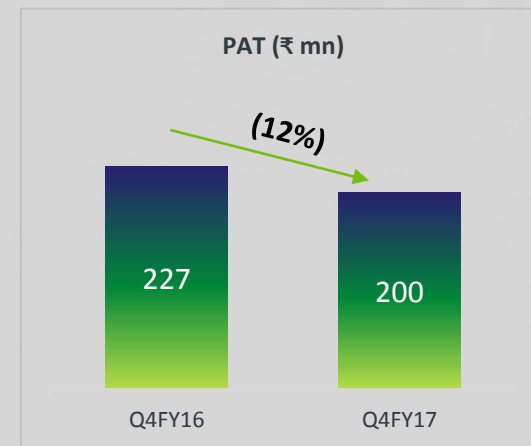
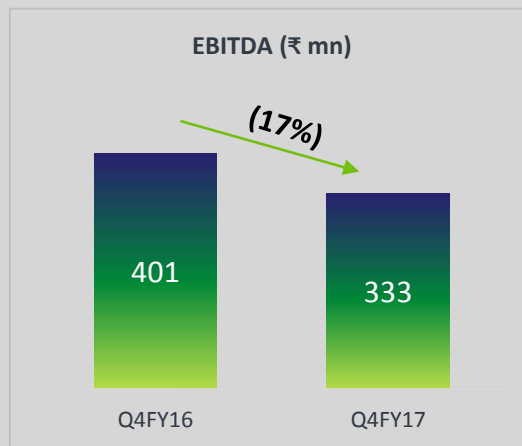
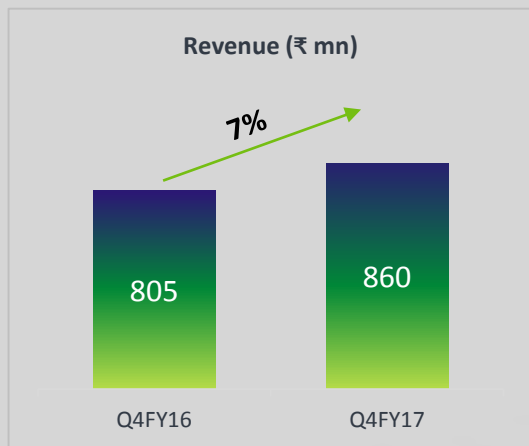
193

143

Note: On Consolidated Basis

EBIDTA is including other income

PAT is before minority

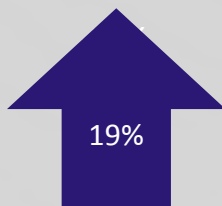


Revenue Breakup

₹ in Million

*YoY Growth

Animal HC



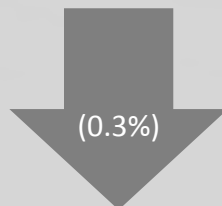
Q4FY17

144

Q4FY16

121

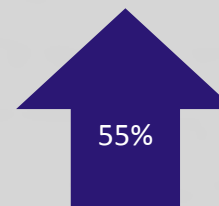
Human HC



616

618

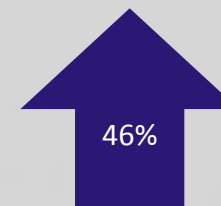
Food



59

38

Industrial Processing



41

28

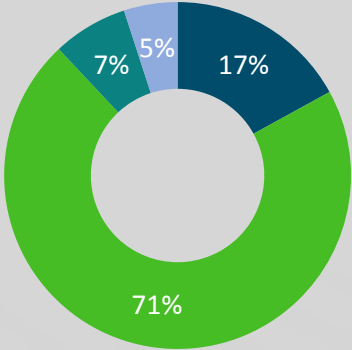
Note: On Consolidated Basis

EBITDA is including other income

PAT is before minority

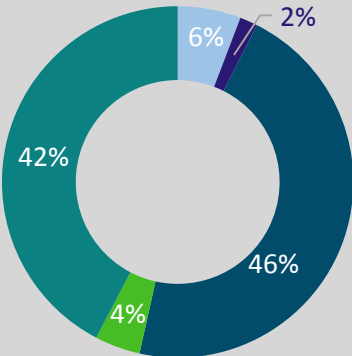
Q4FY17

Segmental Revenue Split (%)



■ Animal HC ■ Human HC ■ Food ■ Industrial Processing

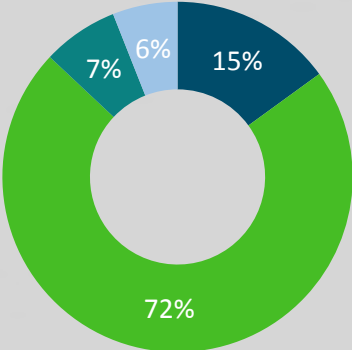
Geographical Revenue Split (%)



■ Asia (ex-India) ■ Others ■ India ■ Europe ■ USA

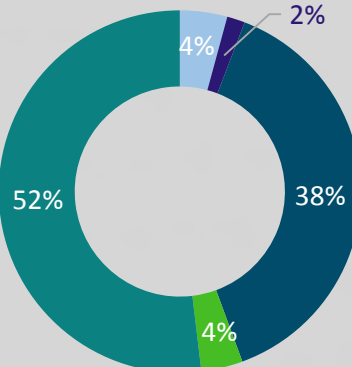
FY17

Segmental Revenue Split (%)



■ Animal HC ■ Human HC ■ Food ■ Industrial Processing

Geographical Revenue Split (%)



■ Asia (ex-India) ■ Others ■ India ■ Europe ■ USA

Profit & Loss (Consolidated) – Q4FY17 & FY17

Particulars	Q4FY17 Unaudited	Q3FY17 Unaudited	Q4FY16 Unaudited	Y-o-Y (%)	FY17	FY16	Y-o-Y (%)
Income from Operations	860	600	805	7%	3,314	2,938	13%
Expenses	565	441	432	31%	1,929	1,649	17%
Profit from Operations before Other Income, Finance Costs and Exceptional Item	295	159	373	(21%)	1,385	1,289	7%
Other Income	6	7	6	6%	23	13	77%
Profit from ordinary activities before Finance Costs and Exceptional Item	301	166	379	(21%)	1,408	1,302	8%
Finance costs	12	3	17	(30%)	42	79	(47%)
Profit from ordinary activities before exceptional item and tax	289	163	362	(20%)	1,366	1,223	12%
Exceptional item	-	-	(0.5)	-	-	(41)	-
Profit from ordinary activities before tax	289	163	361	(20%)	1,366	1,182	16%
Tax	89	13	134	(34%)	442	414	7%
Net Profit for the period	200	150	227	(12%)	924	768	20%
Earnings Per Share	9	7	11		41	35	

Consolidated Balance Sheet

All figures in ₹ mn					
	2013	2014	2015	2016	2017
Equity and Liabilities					
Share Capital	218	218	218	218	223
Reserves & Surplus	1,416	1,457	1,902	2,563	4,378
Non Current Liabilities	1,300	1,024	688	563	388
Current Liabilities	1,019	1,326	1,306	1,107	653
Minority Interest	24	36	45	54	124
Total Liabilities	3,977	4,061	4,159	4,505	5,766
Assets					
Fixed assets	2,887	2,884	2,914	2,924	4,096
Long-term loans and advances	67	78	160	180	191
Other non-current assets	86	179	45	4	9
Inventories	446	499	526	605	685
Trade receivables	388	324	370	418	510
Cash and bank balances	37	26	43	263	79
Other current assets	66	71	101	111	196
Total Assets	3,977	4,061	4,159	4,505	5,766

Consolidated Profit & Loss Statement

All figures in ₹ mn	2013	2014	2015	2016	2017
	Revenue from operations	2,204	2,395	2,231	2,938
Cost of materials consumed	511	471	477	617	681
Gross Profit	1,693	1,924	1,754	2,321	2633
Gross Profit Margin (%)	76.8%	80.3%	78.6%	79.0%	79.5%
Employee benefit expense	269	328	365	445	515
Other expenses	517	585	483	500	611
EBITDA	907	1,011	906	1,376	1507
EBITDA Margin (%)	41.2%	42.2%	40.6%	46.8%	45.4%
Depreciation	74	100	90	87	122
Finance Costs	96	132	93	79	42
Other income	36	19	26	13	23
Exceptional Items/ Extraordinary Items	0	514	0	(41)	-
Tax expense	264	74	230	414	442
Share of Minority interest	11	13	8	9	17
Profit after tax	498	197	511	759	907
PAT Margin (%)	22.6%	8.2%	22.9%	25.8%	27.4%

Consolidated Cash Flow Statement

All figures in ₹ mn					
	2013	2014	2015	2016	2017
Profit before tax	760	278	738	1,225	1366
Adjustments for non-cash transactions	79	128	97	87	166
Interest expenses	90	89	80	67	47
Changes in working capital	(258)	155	(115)	(77)	95
Income taxes paid	(254)	(194)	(264)	(270)	(530)
Net Cash flows from operating activities (A)	411	451	530	1,027	1143
Net purchase of tangible assets and others	(151)	(95)	(92)	(133)	(607)
Net purchase of intangible assets	(161)	(14)	(38)	(13)	(16)
Net Cash flows from investing activities (B)	(308)	(105)	(109)	(139)	(623)
Net borrowings	(210)	(86)	(262)	(514)	(611)
Interest & Dividend paid	(90)	(89)	(80)	(75)	(103)
Net Cash flows from financing activities (C)	(32)	(215)	(359)	(616)	(713)
Net (decrease) / increase in cash and cash equivalents (A + B + C)	71	131	62	272	(193)

Stock Data



Market Capitalization (₹) **45,938 mn**



Shares Outstanding **111.5 mn**



Free Float **32.5 mn**

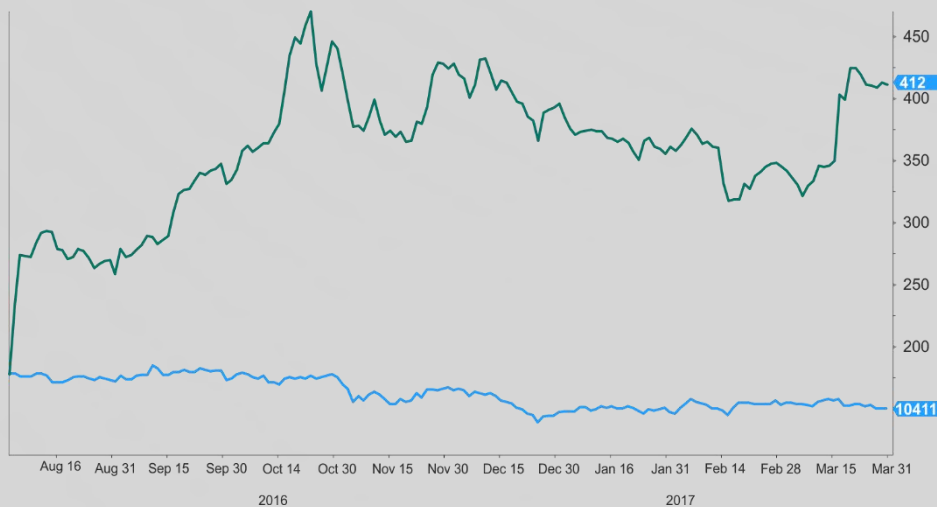


Symbol (NSE/ BSE) **ADVENZYMES / 540025**



Stock Price (FV=Rs.2/-) **412**

Stock Performance



Advanced Enzyme Technologies Ltd.

S&P BSE midcap

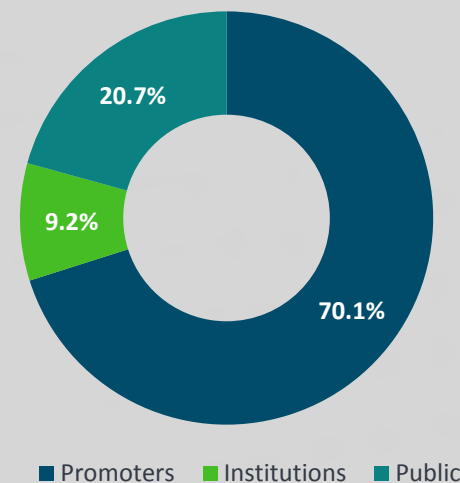
Base : 100

Source: BSE, Bloomberg

Top Institutional Holders

Institutions	OS (%)
DSP Blackrock Investment Management Co.	4.53
Motilal Oswal Asset Management Co. Ltd.	1.42
Reliance Capital Trustee Co. Ltd	1.21
The Nomura Trust And Banking Co. Ltd.	1.02
Birla Sun Life Insurance Company Ltd.	0.08

Shareholding Pattern (%)



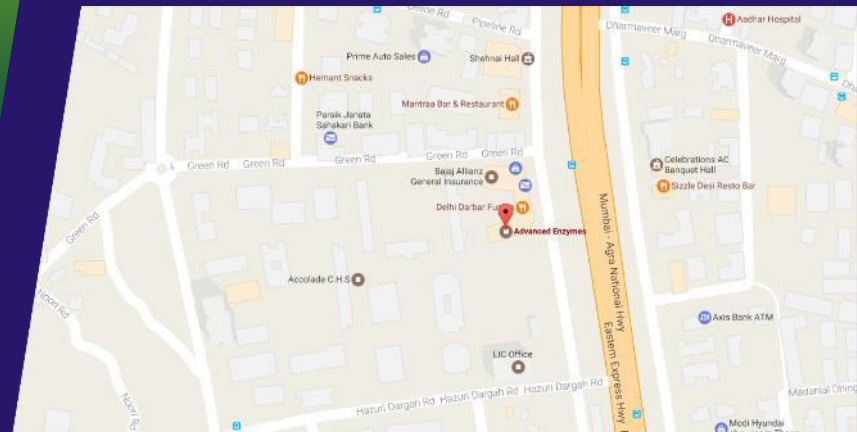
■ Promoters ■ Institutions ■ Public



Thank You



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