



Advanced Enzyme Technologies Limited

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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.

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.



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.



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 of Investment banking, Indusind Bank, Mumbai.



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

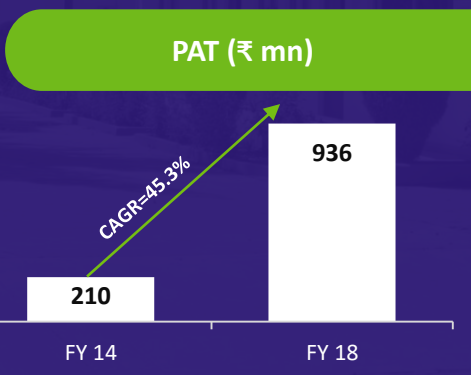
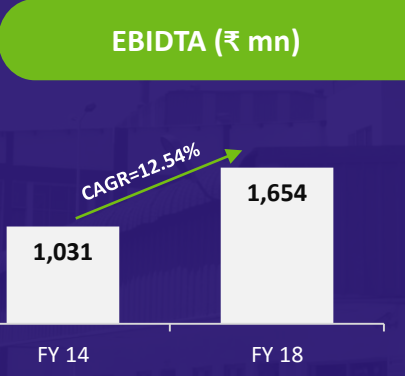
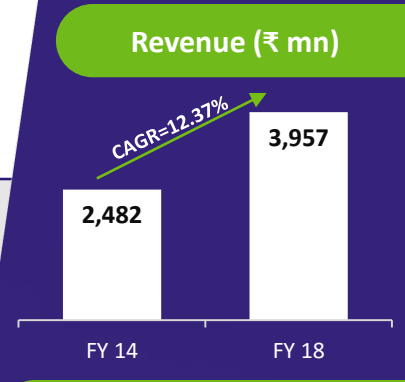


Amongst Top 15 Global Enzyme Companies

Manufacturing Units – 7
 India - 5 USA - 2

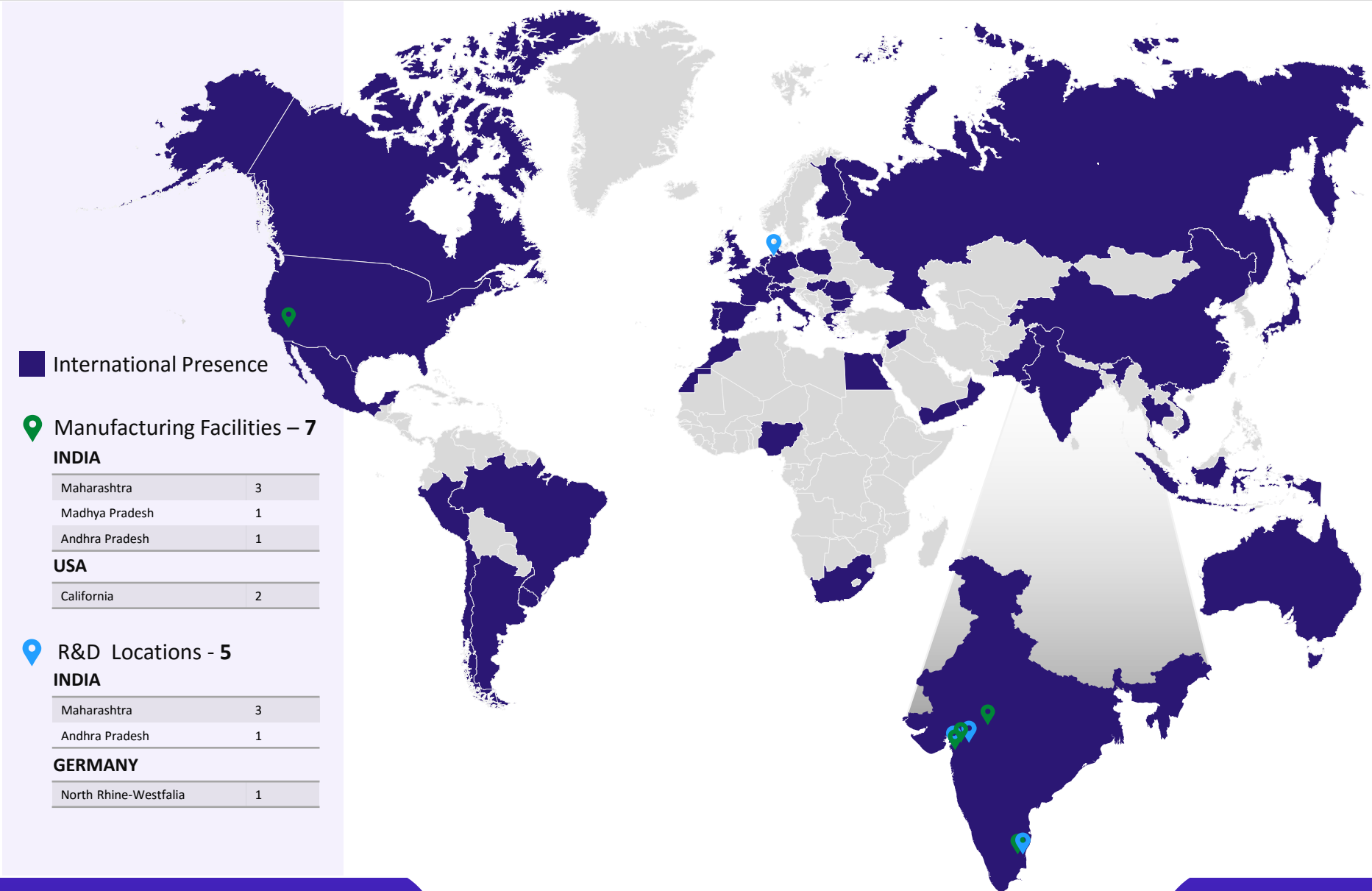
R&D Expense – 3%
 R&D Strength – 60+

68+	28	11	1	420
Enzymes & Probiotics	Registered Patents	Food Enzyme Dossiers filed with EFSA	GRAS Dossier filed with US FDA	m ³ Fermentation Capacity
550+	400+	700+	45+	24+
Employees	Proprietary Products	Customers Worldwide	Countries Worldwide Presence	Years of Fermentation Experience



Note: Facts & Figures as on 31st March 2018

Note: 2014: as per IGAAP | 2018: as per IndAs



International Presence

Manufacturing Facilities – 7

INDIA

Maharashtra	3
Madhya Pradesh	1
Andhra Pradesh	1

USA

California	2
------------	---

R&D Locations - 5

INDIA

Maharashtra	3
Andhra Pradesh	1

GERMANY

North Rhine-Westfalia	1
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Catering to Diverse end-use Industries



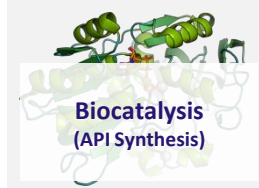
Human Healthcare & Nutrition



Animal Nutrition

~89% of Total Revenue in FY18

- 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



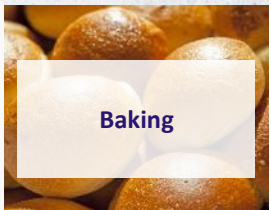
Biocatalysis (API Synthesis)



Detergents



Biofuels



Baking



Leather Processing



Dairy & Cheese Processing



Protein Modification



Textile Processing



Yeast Processing



Brewing



Oil & Fat Processing

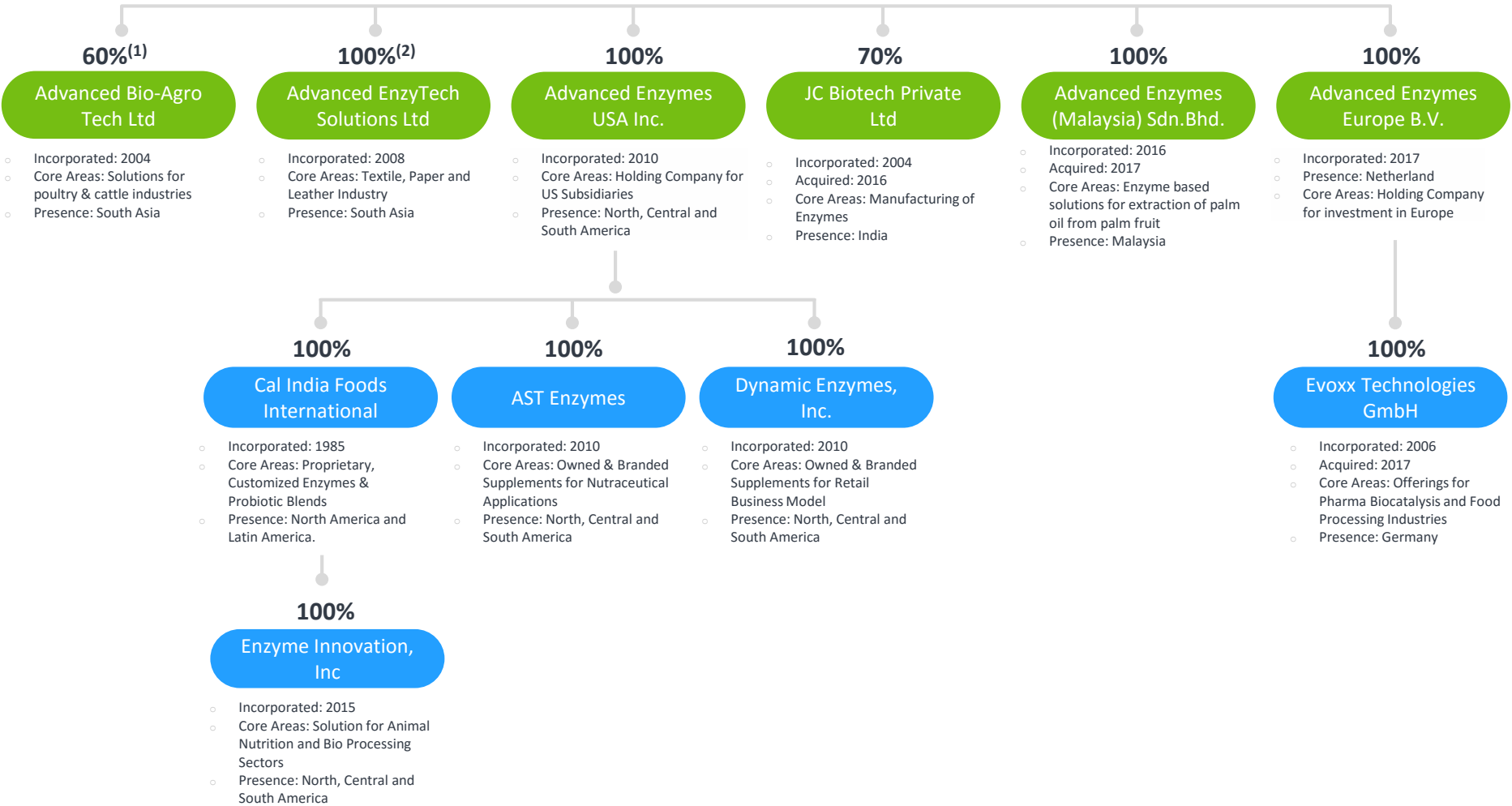


Starch & Grain Processing



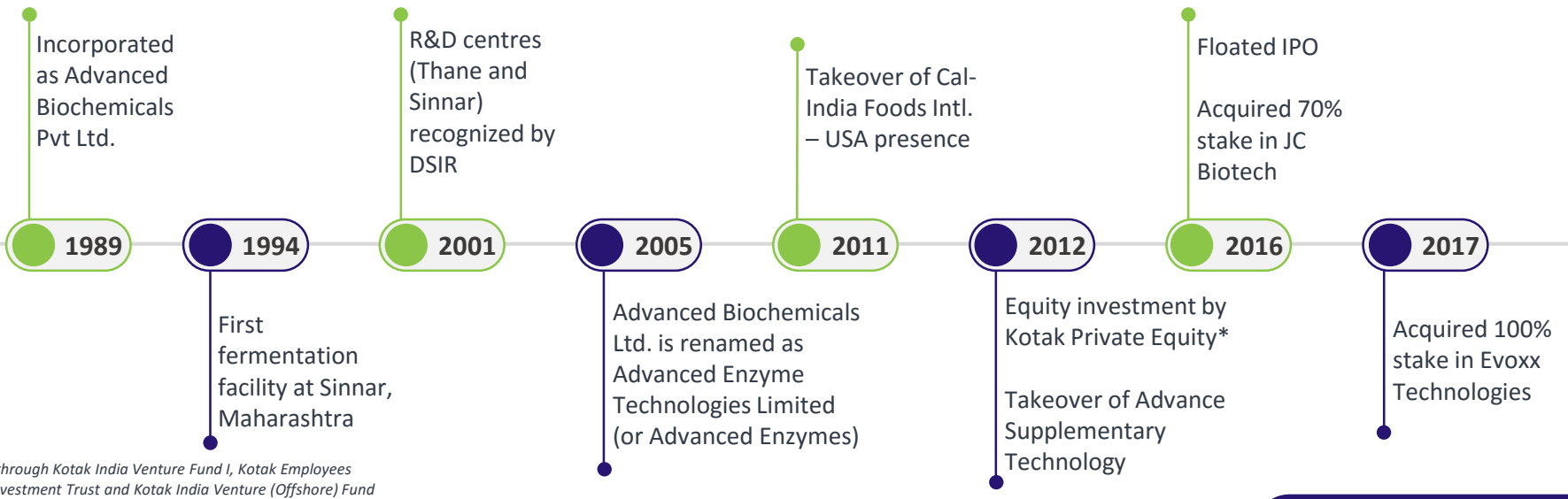
Fruits & Veg. Processing

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 Nutraceuticals company of the year
- ◆ Biotech leader of the decade

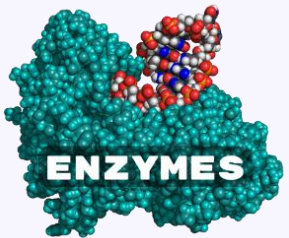


2017

Best IPO of the year award by IR Society, India

Global Enzyme Market

Usage of Enzymes



Enzymes

Industrial Enzymes

- High volume, low value-added application

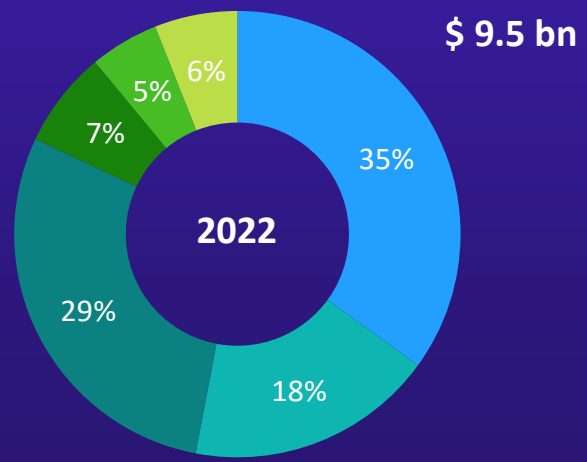
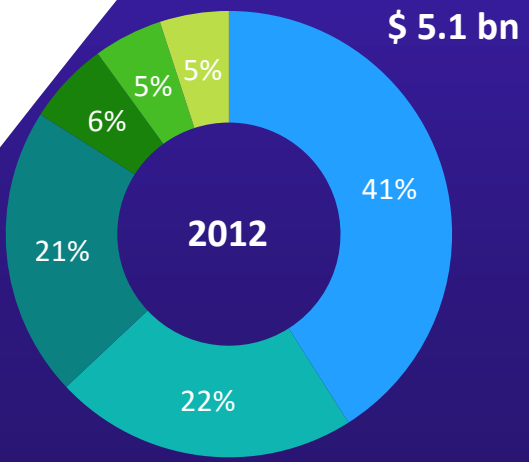
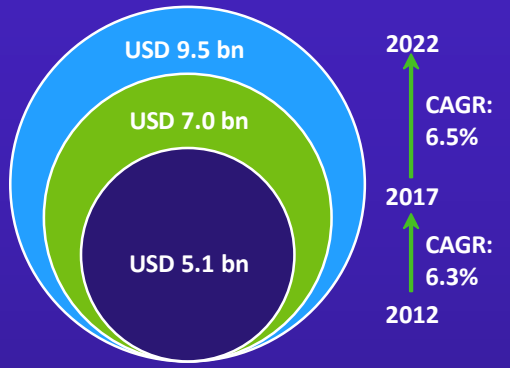
Specialty Enzymes

- 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



■ 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%
	✓	✓	✓	✓	✓

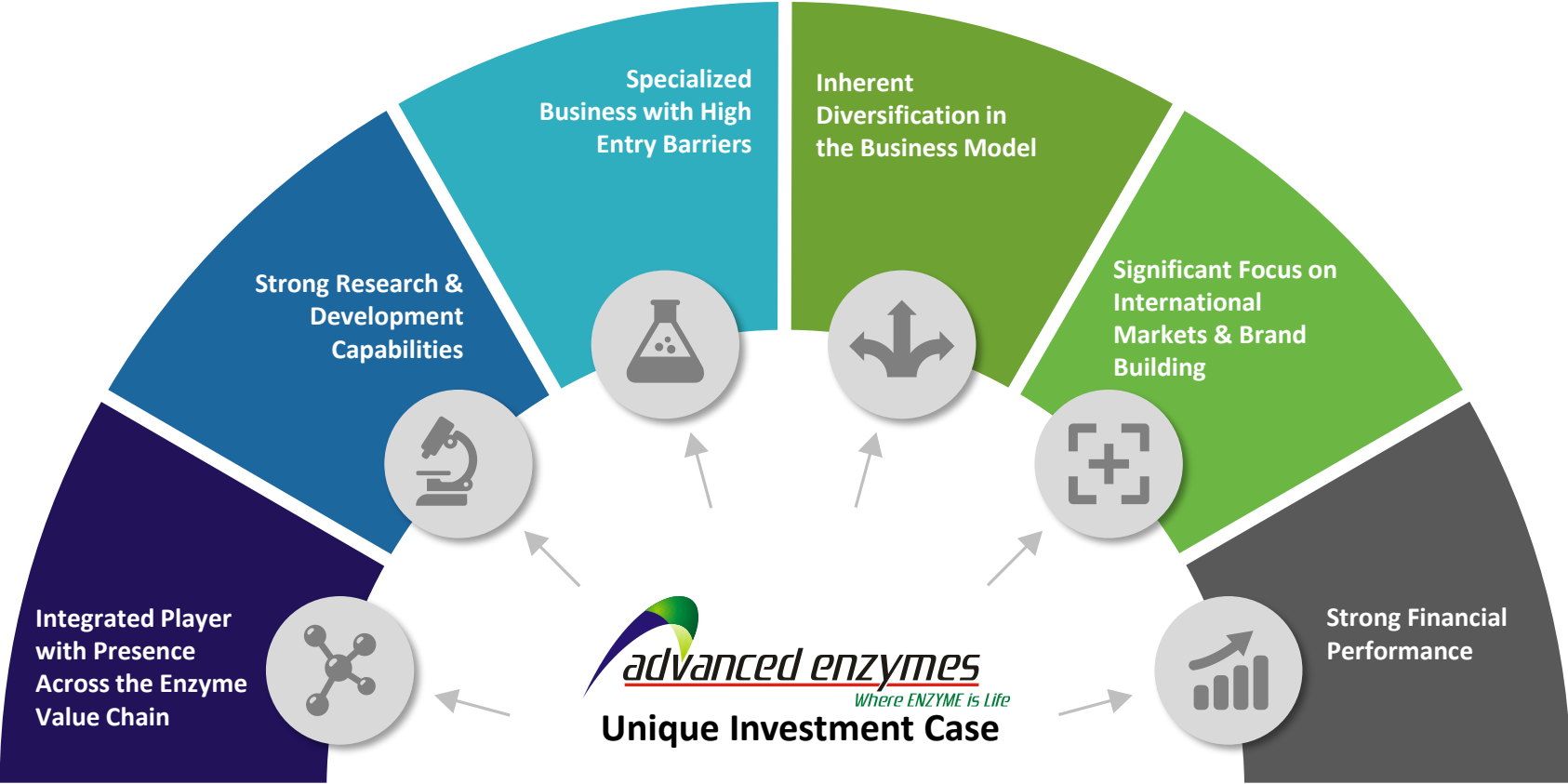
- Expansion of middle class population & meat consumption
- Adoption of Western-style diets
- Global focus on environment and reducing wastage

Global Specialty Enzymes

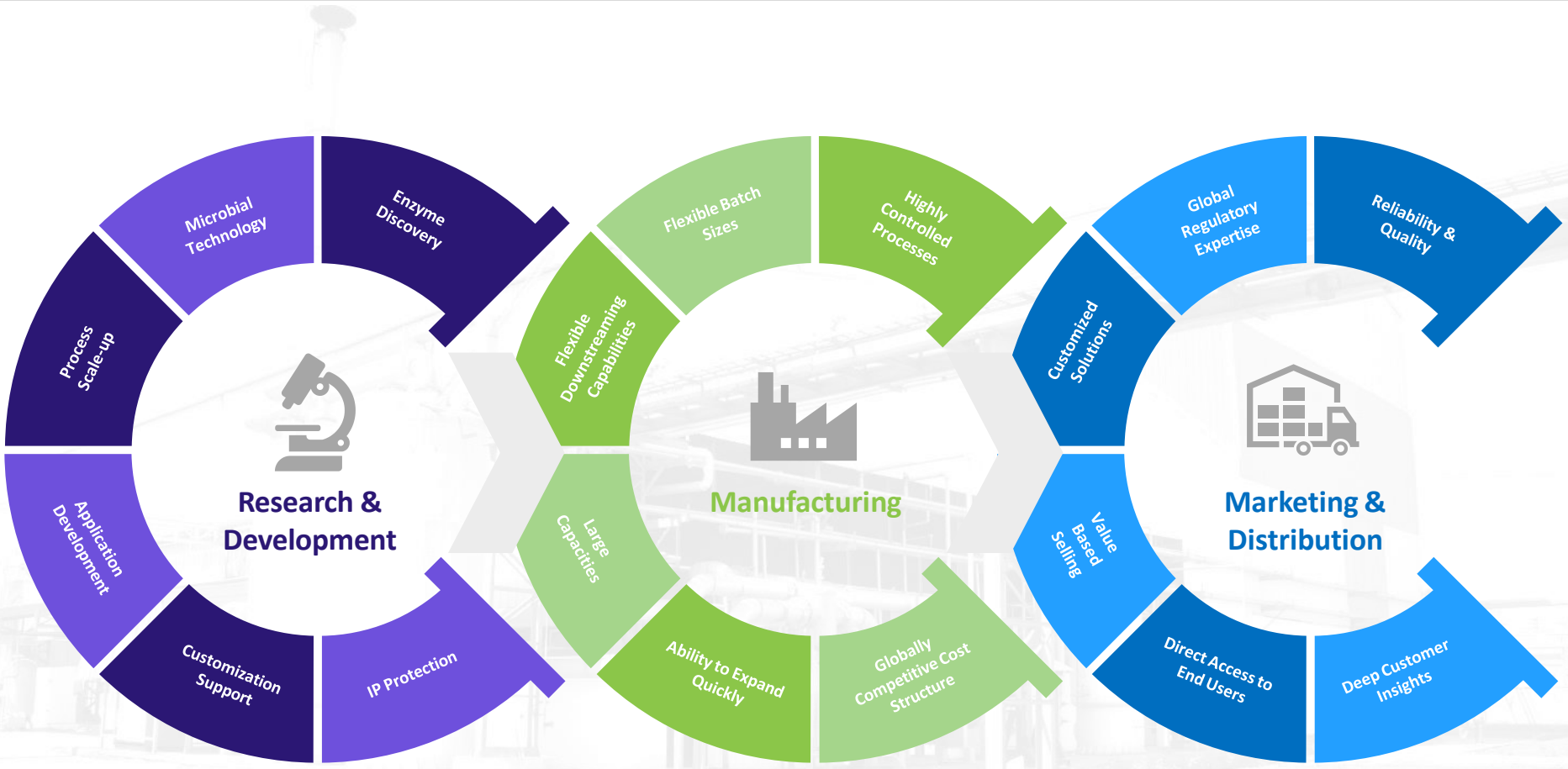
(USD Mn)	Research & Biotechnology	Diagnostic	Other Specialty	
			Biocatalysts	Nutraceuticals
2012	815	430	255	
2022	1,720	950	530	
CAGR	7.8%	8.2%	7.6%	
	-	-	✓	✓

- 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



Integrated Player with Presence Across the Enzyme Value Chain



Enzyme Engineering

- Designing the right set of enzymes with their target applications in mind
- Involves techniques such as Directed Evolution, Rational Design, Quantum Mechanics, etc.

Microbial Engineering & Strain Development

- Developing new & improved microbial systems for enzyme production
- Developing strains with better characteristics such as rapid growth, higher productivity, cheaper media cost, etc

Process Development & Scale-Up

- Developing robust & scalable processes, both in fermentation as well as downstream processing
- Enhancing recovery & yields, to ensure sufficient productivity & commercial feasibility

Application Development & Customer Solution

- Understanding problems related to customers' products & processes, and designing the most effective solutions
- Conducting lab & plant trials to deliver the end results

68+ Enzymes & Probiotics

60+ Scientists, Microbiologists, Engineers, Food Technologists, Biotechnologists

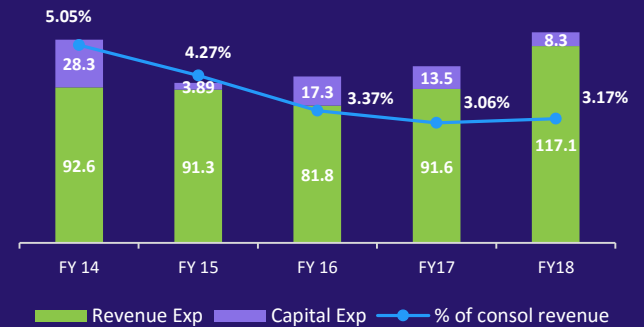
28⁽³⁾ Registered Patents

11⁽¹⁾ Food Enzymes Dossiers filed with EFSA⁽¹⁾

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

Significant Investment in R&D



R&D spend as % of Revenue⁽²⁾

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 24+ years

Proven Enzyme Development Capabilities



Proven Expertise in Successfully Developing Enzymes; Journey from only 7 in 1994 to 68+ 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

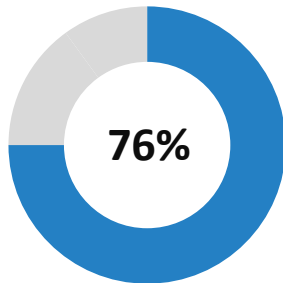


Catering to Diversified Segments & Industries

- 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

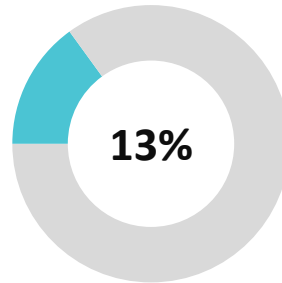
Segment-Wise Revenue Breakup

Human Nutrition



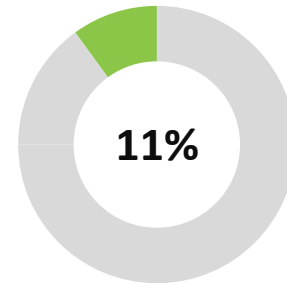
Active Ingredient

Animal Nutrition

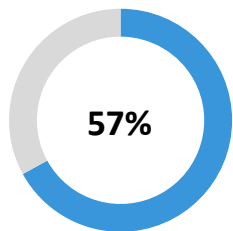


Feed Additive

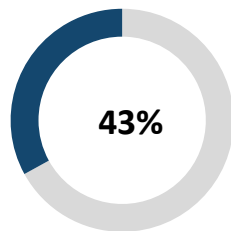
Bio-Processing



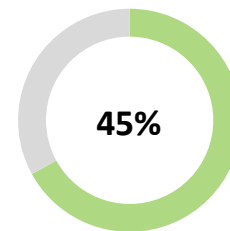
Bio-Catalyst



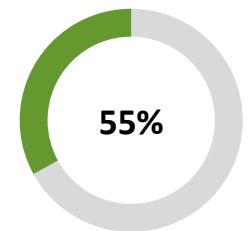
Nutraceuticals



Pharmaceuticals



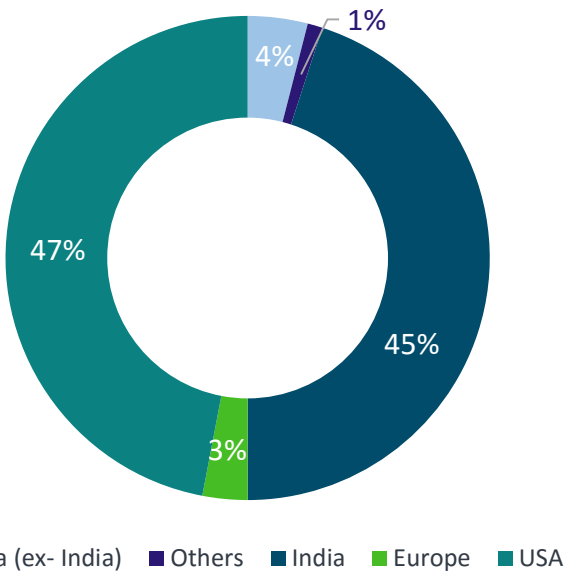
Food Processing



Non-Food Processing

Note: For the year ended March 31, 2018

Corporate Brand Building Through Participation in Global Trade shows



- ◆ Geographically diversified revenue base: 55% International Operations

60+

- ◆ Global Sales & Marketing Team

70+

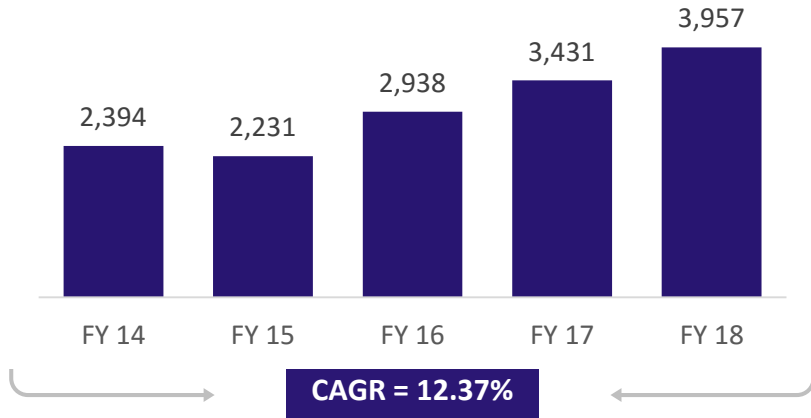
- ◆ International Distributors

**For the year ended March 31, 2018*

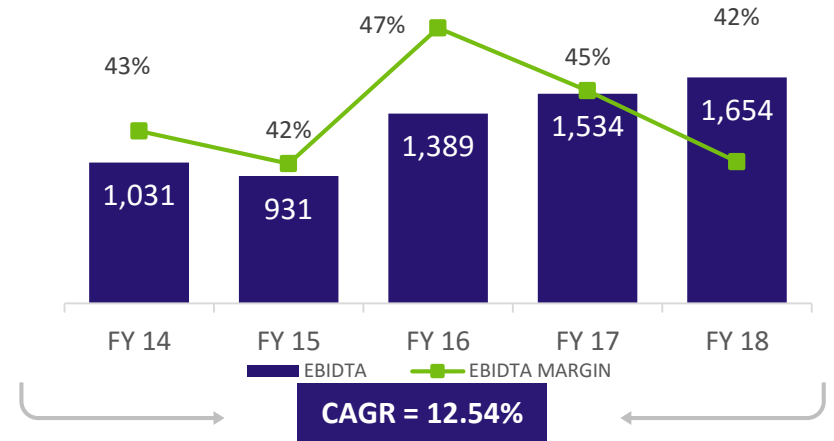


Strong Financial Performance – FY18

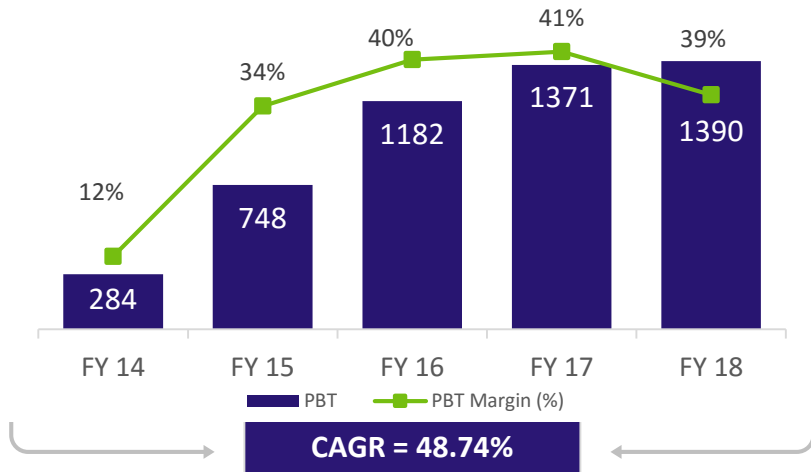
Revenue from Operations



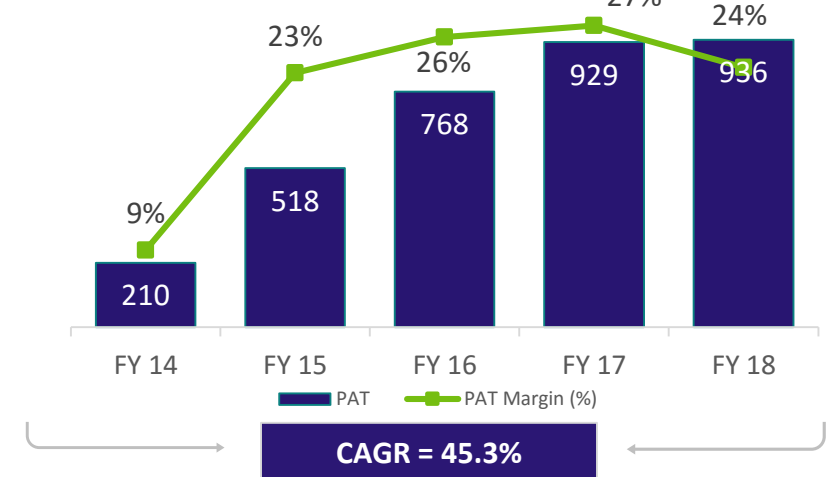
EBIDTA & EBIDTA Margin (%)



PBT & PBT Margin (%)



PAT & PAT Margin (%)



Note: As per IGAAP | FY17 & FY18 – as per IndAs

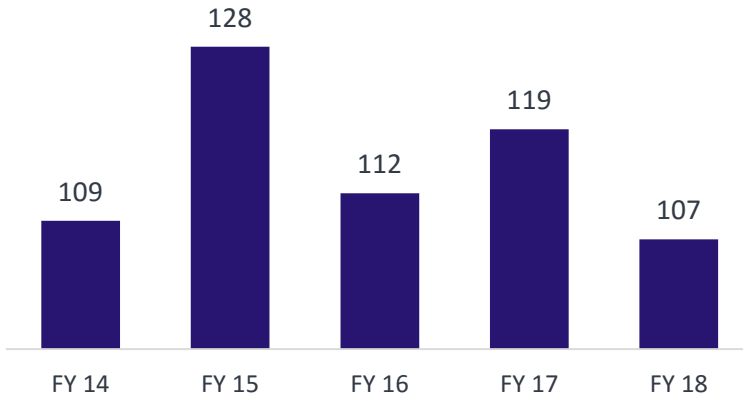
All numbers are on Consolidated basis

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

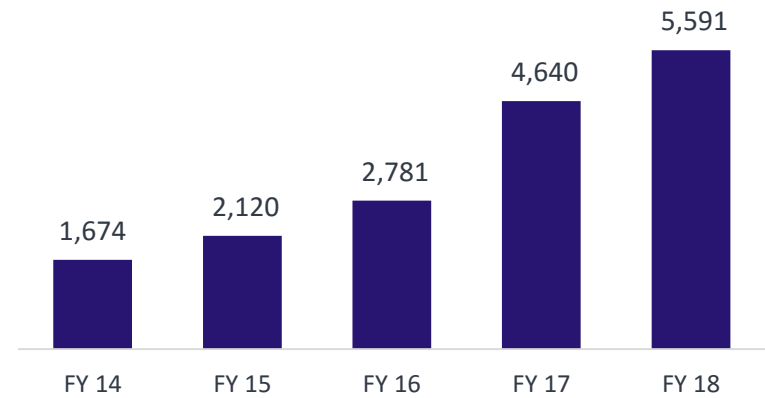
All numbers are in ₹ mn

Strong Financial Performance

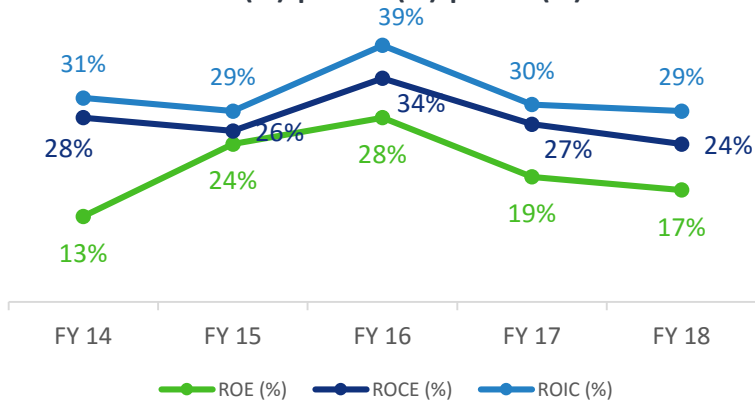
Net Working Capital (Days)



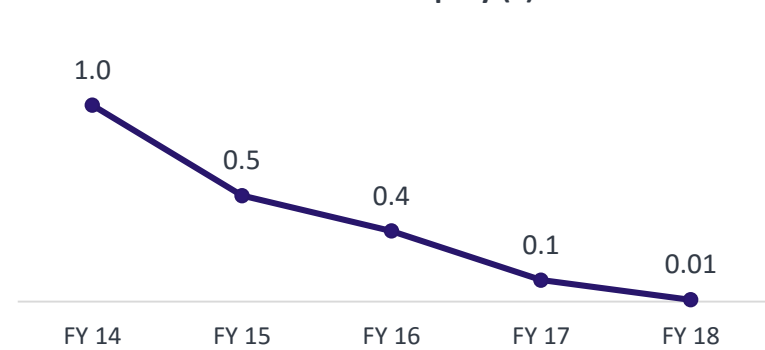
Net Worth (₹ mn)



ROE (%) | ROCE (%) | ROIC (%)



Net Debt to Equity (x)



Note: As per IGAAP | FY17 & FY18 – as per IndAs

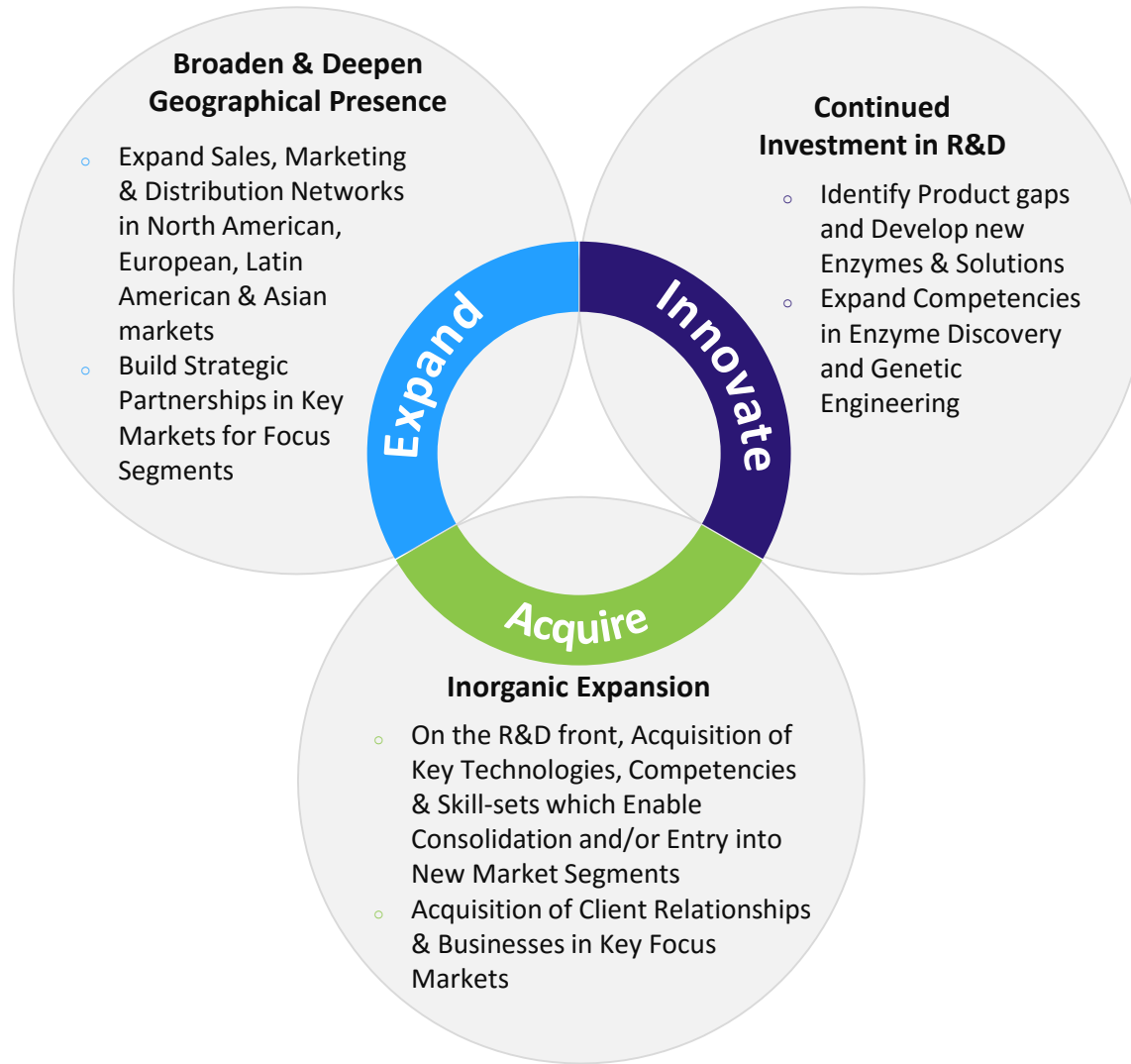
All numbers are on Consolidated basis

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

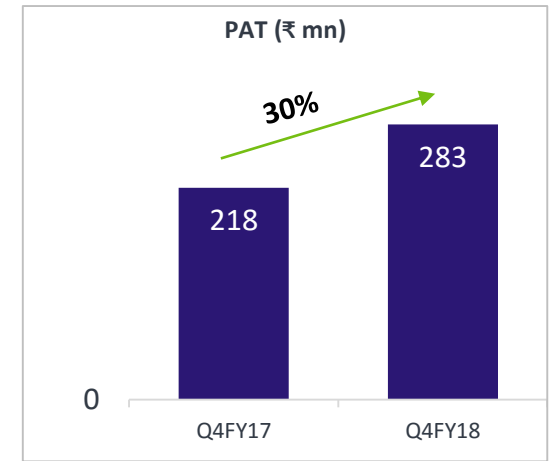
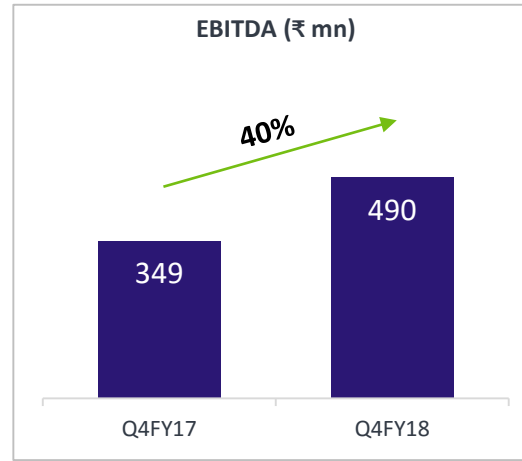
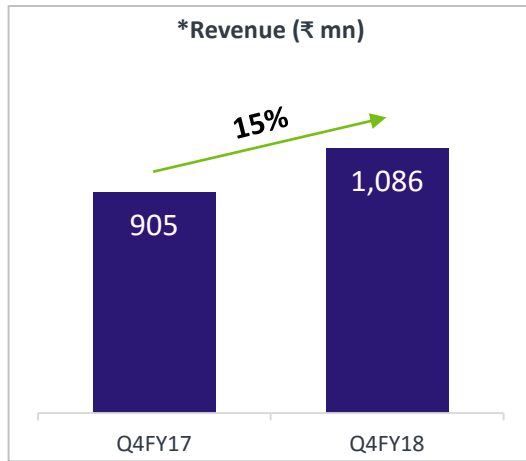
Net Debt = Long term debt + short term debt + current maturities of long term debt – Cash & Cash Equivalent

ROIC = $\text{EBITDA} / (\text{Equity} + \text{Debt} - \text{Cash \& Cash equivalents})$

Future Growth Strategies & Pipeline

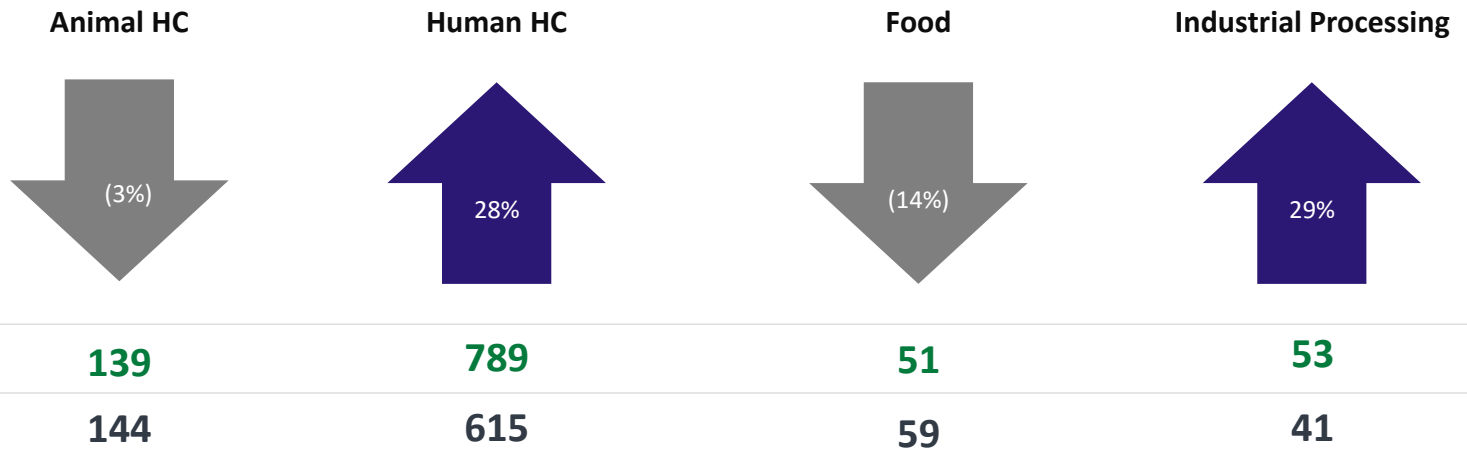


Financial Overview



*YoY Growth

Revenue Breakup (₹ in Million)



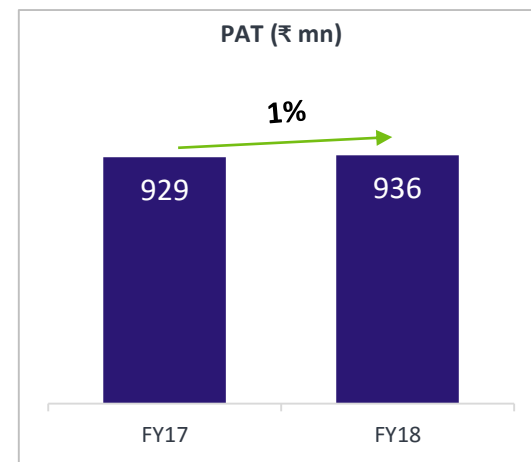
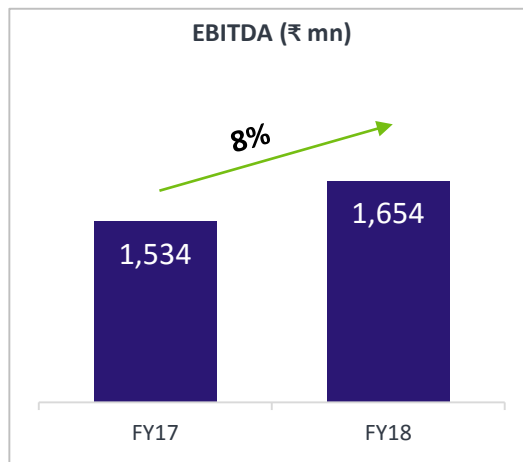
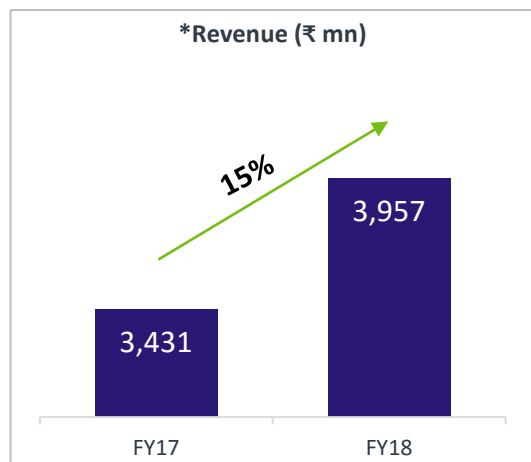
Note: 1.. On Consolidated Basis
2. Revenue excluding excise duty

3. EBITDA is including other income
4. Does not include sales made by Evoxx

5. PAT is before minority
6. Regrouping has been done wherever necessary

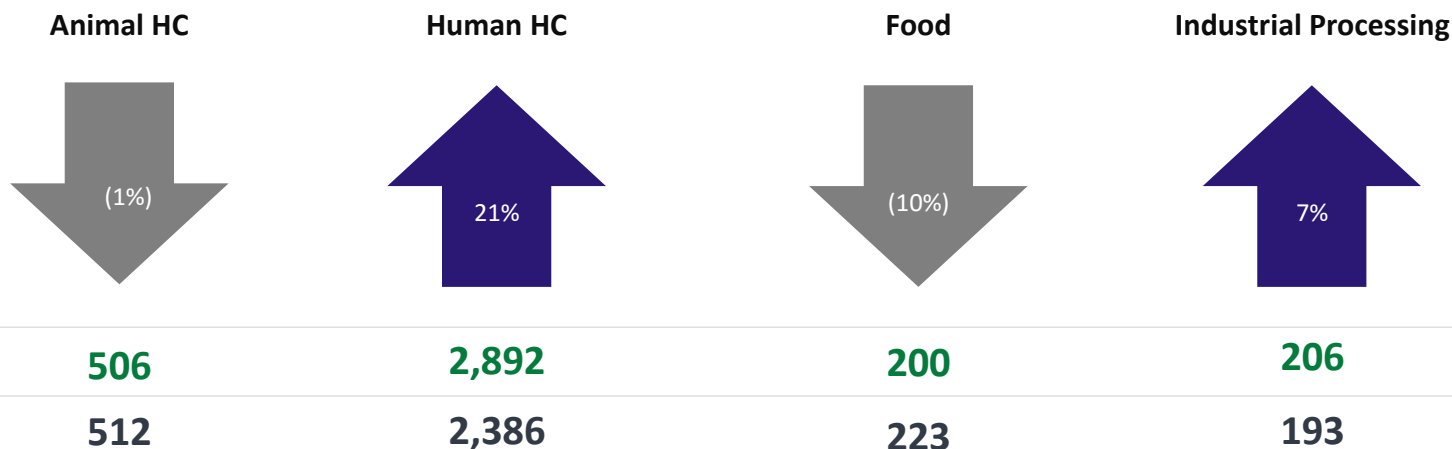
7. Ind AS adjustments are carried out on account of commission and discount.

Results Summary – FY18



Revenue Breakup (₹ in Million)

*YoY Growth



Note: 1.. On Consolidated Basis
2. Revenue excluding excise duty

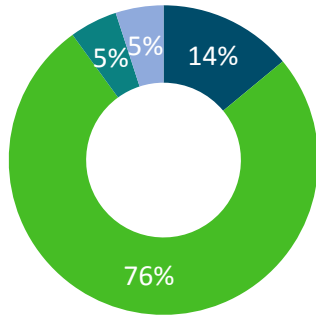
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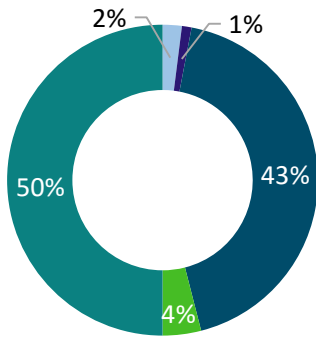
Q4FY18

Segmental Revenue Split (%)



■ Animal HC ■ Human HC ■ Food ■ Industrial Processing

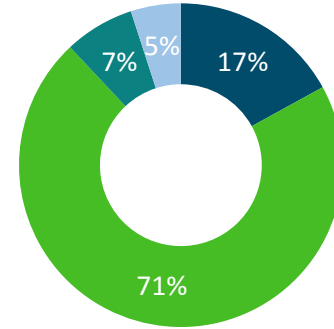
Geographical Revenue Split (%)



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

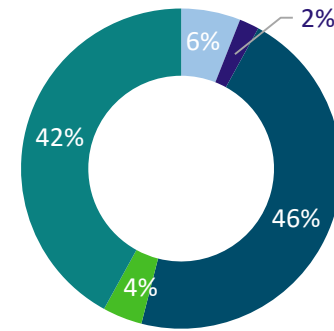
Q4FY17

Segmental Revenue Split (%)



■ Animal HC ■ Human HC ■ Food ■ Industrial Processing

Geographical Revenue Split (%)



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

1. On Consolidated Basis
2. Revenue excluding excise duty

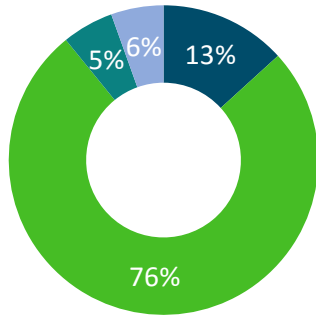
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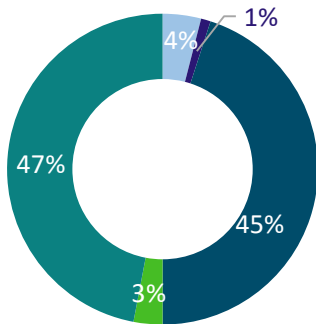
FY18

Segmental Revenue Split (%)



■ Animal HC ■ Human HC ■ Food ■ Industrial Processing

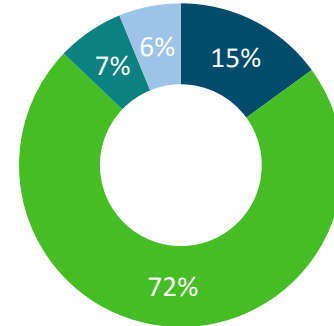
Geographical Revenue Split (%)



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

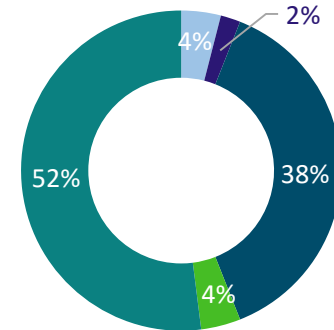
FY17

Segmental Revenue Split (%)



■ Animal HC ■ Human HC ■ Food ■ Industrial Processing

Geographical Revenue Split (%)



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

Note: 1.. On Consolidated Basis
2. Revenue excluding excise duty

3. EBIDTA is including other income
4. Does not include sales made by Evoxx

5. PAT is before minority
6. Regrouping has been done wherever necessary

7. Ind AS adjustments are carried out on account of commission and discount.

Profit & Loss (Consolidated) – Q4FY18 & FY18

₹ in Million except per share data

Particulars	Q4FY18 Audited	Q3FY18 Unaudited	Q4FY17 Audited	Y-o-Y (%)	FY18 Audited	FY17 Audited	Y-o-Y (%)
Income from Operations	1,086	1,082	905	20	3,957	3,431	15
Expenses	650	684	604	8	2,500	2,050	22
Profit from Operations before Other Income, Finance Costs and Exceptional Item	436	398	301	45	1,457	1,381	6
Other Income	6	2	12	(50)	14	26	(46)
Profit from ordinary activities before Finance Costs and Exceptional Item	442	400	313	41	1,471	1,407	5
Finance costs	45	11	11	309	81	36	125
Profit from ordinary activities before exceptional item and tax	397	389	302	31	1,390	1,371	1
Profit from ordinary activities before tax	397	389	302	31	1,390	1,371	1
Tax	114	124	84	36	454	441	3
Net Profit for the period	283	265	218	30	936	929	1
Earnings Per Share	2.44	2.26	1.95		8.07	8.27	

Note: Revenue excluding excise duty

Profit & Loss (Consolidated) – Q4FY18 & FY18

₹ in Million except per share data

Particulars	Q4FY18 Audited	Q3FY18 Unaudited	Q4FY17 Audited	Y-o-Y (%)	FY18 Audited	FY17 Audited	Y-o-Y (%)
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Note: Revenue excluding excise duty

Balance Sheet (Consolidated) – FY18

₹ in Million

Particulars	FY18 Audited	FY17 Audited
ASSETS		
Property, plant and equipment	1,667	1,664
Capital work-in-progress	105	80
Intangible assets	662	270
Goodwill	2,584	2,280
Other non-current assets	143	166
Current assets	2,107	1,382
Assets held for sale	48	48
TOTAL- ASSETS	7,316	5,890
EQUITY AND LIABILITIES		
Equity share capital	223	223
Other equity	5,368	4,417
Non-controlling interest	226	211
Non-current liabilities	471	386
Current liabilities	987	617
Liabilities classified as held for sale	41	36
TOTAL- EQUITY AND LIABILITIES	7,316	5,890

₹ in Million

Year	Q1	Q2	Q3	Q4	Total
FY18	66	275	235	234	810
FY17	375	278	2	135	790
FY16	137	127	211	237	712
FY15	58	31	73	60	222

Average Exchange rate: 2015 - \$1 = ₹ 61.15
 2016 - \$1 = ₹ 65.46
 2017 - \$1 = ₹ 67.09
 2018 - \$1 = ₹ 64.45 (upto 31st December 2017)






Consolidated Balance Sheet

All figures in ₹ mn	2014	2015	2016	2017	2018
Equity and Liabilities					
Share Capital	218	218	218	223	223
Reserves & Surplus	1,457	1,902	2,563	4,417	5,368
Non Current Liabilities	1,024	688	563	386	470
Current Liabilities	1,326	1,306	1,107	653	1,029
Minority Interest	36	45	54	211	226
Total Liabilities	4,061	4,159	4,505	5,890	7,316
Assets					
Fixed assets	2,884	2914	2,924	2,014	2,434
Long-term loans and advances	78	160	180	-	-
Other non-current assets	179	45	4	2,446	2,727
Inventories	499	526	605	685	756
Trade receivables	324	370	418	498	586
Cash and bank balances	26	43	263	79	614
Other current assets	71	101	111	168	199
Total Assets	4061	4,159	4,505	5,890	7,316

Consolidated Profit & Loss Statement

All figures in ₹ mn	2014	2015	2016	2017	2018
Revenue from operations	2,395	2,231	2,938	3,431	3,957
Cost of materials consumed	471	477	617	851	862
Gross Profit	1,924	1,754	2,321	2,580	3,095
Gross Profit Margin (%)	80.3%	78.6%	79.0%	75.2%	78.2%
Employee benefit expense	328	365	445	507	686
Other expenses	585	483	500	565	770
EBITDA	1,011	906	1,376	1,508	1,639
EBITDA Margin (%)	42.2%	40.6%	46.8%	44.0%	44.0%
Depreciation	100	90	87	128	183
Finance Costs	132	93	79	36	81
Other income	19	26	13	26	14
Exceptional Items/ Extraordinary Items	514	0	(41)	0	0
Tax expense	74	230	414	441	454
Share of Minority interest	13	8	9	14	35
Other comprehensive income	0	0	0	0	(1)
Profit after tax	197	511	759	915	901
PAT Margin (%)	8.2%	22.9%	25.8%	26.7%	22.8%

Stock Data (As on 15th June 2018)

 Market Capitalization (₹)	25,223 mn
 Shares Outstanding	111.6 mn
 Free Float	36.46 mn
 Symbol (NSE/ BSE)	ADVENZYMES / 540025
 Average Daily Volume (3 months)	49,978

Stock Chart (As on 15th June 2018)

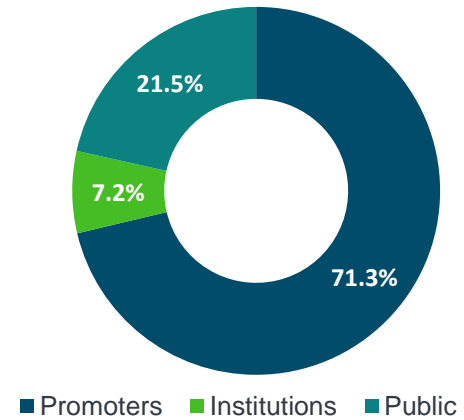


Source: BSE, NSE, Thomson Reuters

Top Institutional Holders (As on 15th Jun 2018)

Institutions	OS (%)
HDFC Small Cap Fund	3.88
Reliance Small Cap Fund	1.40
DSP BlackRock Small Cap Fund	1.08
Stewart Investors Indian Subcontinent Fund	0.87
Stewart Investors Asia Pacific Sustainability Fund	0.71

Shareholding Pattern (%)



Note: Data mentioned in above chart is as on 31st March 2018

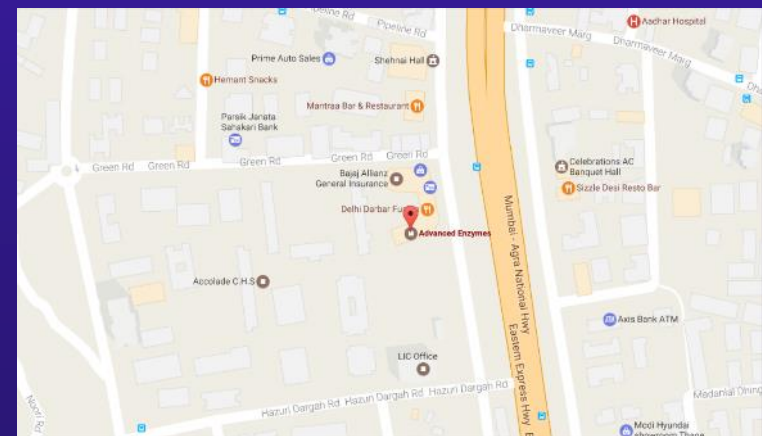


Thank You

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