

INTEGRATING
INNOVATION
NURTURING
SUSTAINABILITY



ACROSS THE PAGES



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Please find the online version of the Annual Report at:

<https://www.advancedenzymes.com/wp-content/uploads/2023/07/Annual-Report-2022-23.pdf>

Scan this QR code

Disclaimer: This document contains statements about expected future events and financials of Advanced Enzymes Technologies Limited (hereafter referred to as 'AETL', 'Your Company'), which are forward-looking. By their nature, forward-looking statements require your Company to make assumptions and are subject to inherent risks and uncertainties. There is a significant risk that the assumptions, predictions, and other forward-looking statements may not prove to be accurate. Readers are cautioned not to place undue reliance on forward-looking statements as several factors could cause assumptions, actual future results and events to differ materially from those expressed in the forward-looking statements. Accordingly, this document is subject to the disclaimer and qualified in its entirety by the assumptions, qualifications and risk factors referred to in the Management Discussion and Analysis section of this Annual Report.



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INVESTOR INFORMATION

Market Capitalisation : ₹ 25,904 million
as of March 31, 2023

CIN : L24200MH1989PLC051018

BSE Code : 540025

NSE Symbol : ADVENZYMES

Bloomberg Code : ADVENZY:IN

Dividend Proposed : ₹ 1/share

AGM Date : August 12, 2023

CORPORATE OVERVIEW

BOARD OF DIRECTORS

Mr. Vasant Rath
Non-Executive Chairman

Mr. Mukund M. Kabra
Whole-time Director

Ms. Rasika Rath
Non-Executive Director

Mr. Kedar Desai
Independent Director

Mr. Pramod Kasat
Independent Director

Mr. Rajesh Sharma (upto August 10, 2023)
Independent Director

Mr. Vinodkumar Jajoo
Independent Director

Dr. Sunny Sharma
Non-Executive Director

Ms. Rajshree Patel
Independent Director

Mr. Nitin Desmukh
Independent Director

Ms. Vandana Tilak (w.e.f July 01, 2023)
Addl. Director (Independent)

MANAGEMENT TEAM

Mr. Beni Prasad Rau
Chief Financial Officer

Mr. Dipak Roda
Sr. VP. Marketing & Business Development

Mr. Sanjay Basantani
Company Secretary & Head-Legal

Mr. Harshad Doshi
Chief Financial Officer & Chief Operating Officer of the US subsidiaries

Ms. Martina Doering
Managing Director/Head of Business Development, evovx technologies GmbH, Germany

Dr. Michael Puls
Managing Director/Head of R&D, evovx technologies GmbH, Germany

PLANTS (including subsidiaries)

A-61/62, M.I.D.C. Area, Sinnar,
Nashik - 422 103, Maharashtra

SORL, H-17, M.I.D.C., Satpur Area,
Nashik - 422 007, Maharashtra

Survey No.30, Pali, Vasind, Shahpur,
Thane - 421 601, Maharashtra

Plot No. B-5-13, SEZ, Pithampur,
Dhar 452 774, Madhya Pradesh

Plot No. 548 to 550, APIIC Growth
Centre, Gundlapalli Village, Maddipadu
Mandal, Prakasam District,
Ongole - 523 211, Andhra Pradesh

Unit I - A-3, Unit II - A-12/13, STICE,
Musalgaon, Tal. Sinnar District,
Nashik - 422 112, Maharashtra

13591 Yorba Avenue, Chino, California
91710 4880 Murrieta St., Chino CA 91710

R&D LOCATIONS (including subsidiaries)

Plot No. A-161, Main Road No. 27, Wagle
Industrial Estate, Thane (W) - 400 604,
Maharashtra

A-135, Road No. 23, Wagle Industrial
Estate, Thane (W) - 400 604, Maharashtra

A-43, STICE, Musalgaon, Sinnar, Nashik -
422 112, Maharashtra

Plot No. 548 to 550, APIIC Growth Centre,
Gundlapalli Village, Maddipadu Mandal,
Prakasam District, Ongole - 523 211,
Andhra Pradesh

Alfred-Nobel-Str. 10, 40789 Monheim am
Rhein, 1406 Lexington Street, Tustin CA
92782

REGISTERED OFFICE

Advanced Enzyme Technologies Limited
CIN: L24200MH1989PLC051018
A - Wing, Sun Magnetica, 5th Floor, LIC
Service Road, LouiSwadi,
Thane (W) - 400 604, Maharashtra
Tel: +91-22-41703200
Fax: +91-22-25835159
Email: info@advancedenzymes.com
Website: www.advancedenzymes.com

REGISTRAR & TRANSFER AGENT

Link Intime India Private Limited
C 101, 247 Park, L.B.S. Marg, Vikhroli
(West), Mumbai - 400 083, Maharashtra
Tel: +91-22-49186270
Fax: +91-22-49186060
Email ID: rnt.helpdesk@linkintime.co.in
Website: www.linkintime.co.in

STATUTORY AUDITORS

MSKA & Associates
Chartered Accountants
408, 4th Floor, Manish Chambers, Sonawala Road,
above Axis bank, Jay Prakash Nagar, Goregaon,
Mumbai - 400063, Maharashtra

INTERNAL AUDITORS

Aneja Associates
Chartered Accountants
301, Peninsula Towers,
Peninsula Corporate Park,
Ganpatrao Kadam Marg, Lower Parel,
Mumbai - 400 013, Maharashtra

SECRETARIAL AUDITORS

Mr. Shiv Hari Jalan, Shiv Hari Jalan & Co.
Practicing Company Secretaries,
1055, Level 10, Hubtown Solaris,
N.S. Phadke Marg, Andheri (East),
Mumbai - 400 069, Maharashtra

BANKERS

Citi Bank N.A.
HDFC Bank Limited
DBS Bank Limited
ICICI Bank Limited
Axis Bank Limited



INTEGRATING INNOVATION NURTURING SUSTAINABILITY

In the last few years, there have been rapid changes related to the environment as well as the health and wellness ecosystems. In such a scenario, the need of the hour is to integrate innovation and nurture sustainability through technological and biological research and development. In this regard, Advanced Enzyme Technologies Limited (AETL) has remained committed to the cause of greater good. This theme highlights your Company's commitment towards incorporating innovative ideas through a sustainable approach. We believe innovation plays an important role in shaping our future and when it blends with sustainability, the outcomes are long-term. The theme highlights the continuous innovation in the enzymes, ensuring that the progress is environmentally sustainable. With focus on innovation and sustainability, we strive towards progress that will benefit your Company along with marking a new milestone in the industry, while also enhancing the brand's reputation and reducing risks.

INTEGRATING INNOVATION

Your Company strives to develop and implement new technologies in the process to meet customer needs through its various offerings. By innovating, we stay competitive in the market and continuously add value for our stakeholders.

NURTURING SUSTAINABILITY

Your Company is committed to growing its business in a sustainable manner. We strive to minimise environmental impact by adopting sustainable practices thereby ensuring economic viability in long-term. This includes reducing our carbon footprint, conserving resources, and promoting the well-being of our stakeholders.

Your Company's focus is on balancing innovation and sustainability to create a better future for all its stakeholders in long-term. The aim of this theme is to position AETL as a forward-thinking organisation committed to delivering innovative solutions that are sustainable and environment-friendly.

₹ **1,564** million
EBITDA

₹ **1,039** million
PAT

₹ **12,351** million
Net Worth

10%
RoCE

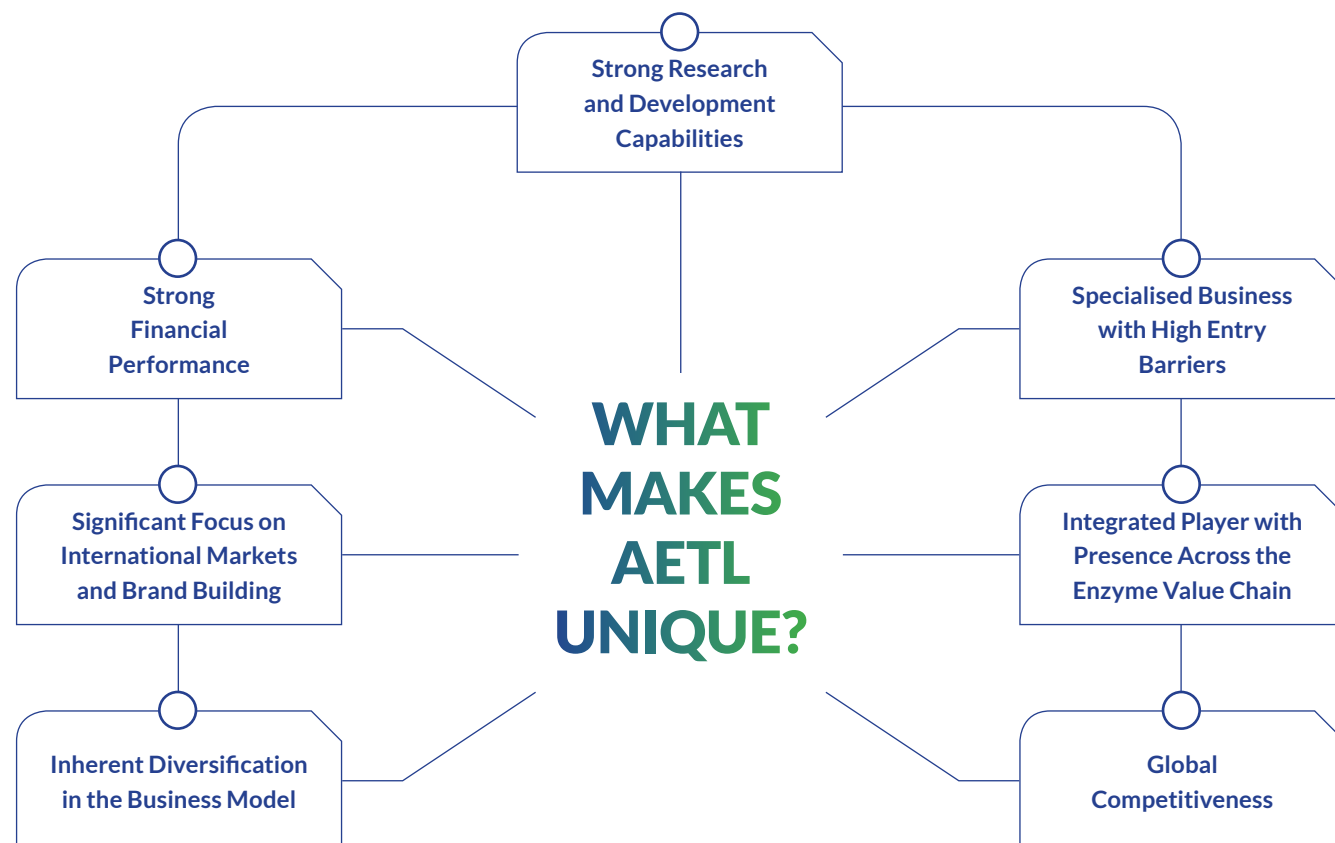


WHO ARE WE AND WHAT DO WE DO?

Advanced Enzyme Technologies Limited (hereafter referred to as 'AETL' or 'Your Company'), is a preeminent research-driven company. This consistency has helped it emerge as a global player in the manufacturing of enzymes and probiotics. By leveraging a strong and resilient team, your Company has managed to master a range of over 400 products developed with over 68 indigenous enzymes and probiotics. This seeds from your Company's unwavering dedication to the substitution of chemicals with that of ecologically sound solutions which find its application across diversified industries. Our aim is to help consumers access side-effect free healthcare, help farmers enhance nutrition for animals and replace traditionally used chemicals with eco-friendly enzymatic solutions.

R&D Laboratories

Across India, the US and Germany



WHAT ARE ENZYMES?

Enzymes are proteinaceous molecules which serve as biological catalysts. They facilitate the acceleration of chemical reactions and metabolic processes. By replacing traditional chemical agents, enzymes bolster the efficiency and efficacy of an extensive array of products utilised across a diverse range of industries and applications.

WHAT ARE PROBIOTICS?

Probiotics are micro-organisms like living bacteria that confer considerable health benefits to both humans and animals, by facilitating the maintenance of robust bodily functions and bolstering the immune system. In addition to promoting overall wellness, probiotics are highly effective in treating a host of afflictions, including but not limited to inflammatory bowel disease and urogenital infections.

End-User Application

Human health care and nutrition, animal nutrition, baking, fruit and vegetable processing, brewing and malting, grain processing, protein modification, dairy processing, specialty applications, textile processing, leather processing, paper and pulp processing, biofuels, biomass processing, and biocatalysis, among others.



MISSION

It is our mission to see that every human being is able to utilise the power of enzymes and probiotics, for general well-being, health and improving the quality of life. It is also our mission to see that every possible industry is able to take the advantage of enzymes, to create and produce innovative products, improve the quality of the end products, reduce energy costs, optimise the use of raw materials and resources, and reduce pollution and the overall carbon footprint of the process.



VISION

Our vision at AETL is to become a leading, respected and preferred, enzymes and probiotics-based solutions provider in the global market.



THE PILLARS OF OUR STRENGTH

KEY FACTS

1st

Listed Indian
Enzyme Company

2nd

Highest Market
Share in India

68+

Enzymes and
Probiotics

400+

Proprietary
Products

45+

Countries
Worldwide Presence

700+

Customers
Worldwide



750+

Employees

13^{*}

Patents

500^{m³}

Fermentation
Capacity

13[#]

Food Enzymes Dossiers
Filed with EFSA

25+

Years of Fermentation
Experience

7^{**}

GRAS Dossier Evaluated
by the US FDA

9

Manufacturing Units
(seven in India, two in USA)

1^{##}

Novel Food Dossier Filed

7

R&D Units
(five in India, one in USA, one in Germany)

*Patents includes the filed applications

#Food Dossier filed with EFSA, out of which positive opinion is received for seven dossiers & six are under evaluation

**No question letter received for 5 Dossier, another two are under evaluation

##Novel food dossier has been filed with EFSA is under evaluation

INNOVATING FOR SUSTAINABILITY: OUR JOURNEY OVER YEARS

Drawing upon its 30+ year expertise, your Company has made significant strides and continues to thrive via organic and inorganic means. By procuring a host of global entities, your Company has effectively established a foothold in the international market, thereby enabling easy accessibility in the global market and delivering constant growth.

1989

Incorporated as Advanced Biochemicals Private Limited

2005

Advanced Biochemicals Limited renamed as Advanced Enzyme Technologies Limited

2001

R&D locations (Thane and Sinner) recognised by DSIR

2012

- ✂ Equity investment by Kotak Private Equity*
- ✂ Takeover of Advanced Supplementary Technologies
- ✂ Second fermentation facility commissioned at Pithampur, Indore

2014

First food enzyme dossier filed

2021

Acquired 51% stake in SciTech Specialities Private Limited with two manufacturing facilities and one R&D unit

2023

- ✂ Acquired 50% stake in Saiganesh Enzytech Solutions Private Limited
- ✂ Acquired an additional stake of 4.83% in J C Biotech
- ✂ Launched Wellfa , an in house B2C consumer brand

1994

First fermentation facility commissioned at Sinner, Maharashtra

2004

- ✂ Advanced Biochemicals ranked as the largest domestic manufacturer of industrial enzymes
- ✂ Advanced Biochemicals files its first patent

2011

Takeover of Cal-India Foods International – USA presence

2016

- ✂ Floated IPO
- ✂ Acquired 70% stake in JC Biotech with a fermentation facility at Ongole, Andhra Pradesh

2018

- ✂ Four food enzymes approved as a processing aid with Food Safety Standard Authority of India (FSSAI)
- ✂ Four enzymes registered with REACH -ECHA (European Chemical Agency)

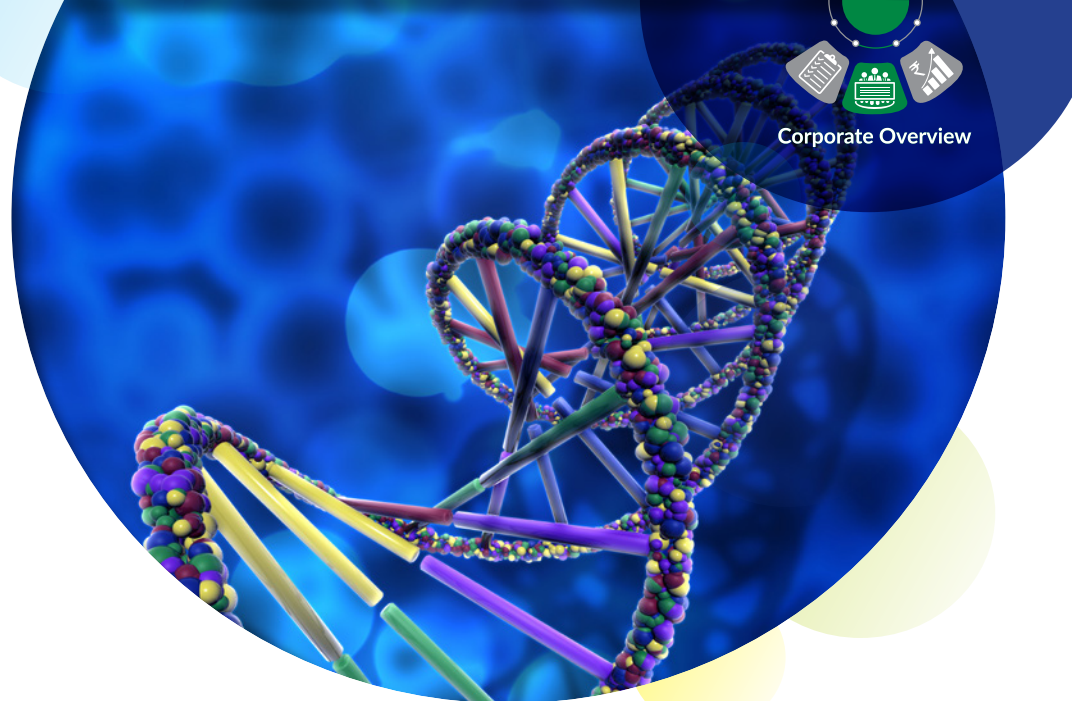
2022

- ✂ Received NIH grant for ImmunoSEB and ProbioSEB CSC3
- ✂ Approvals of 2 GRAS Dossiers for SEBTilis™ and SEBclausii™
- ✂ Increased 15% stake in JC Biotech

Note : * Through Kotak India Venture Fund I, Kotak Employees Investment Trust and Kotak India Venture (Offshore) Fund

CREATING DISTINCTIVE MARKET PRESENCE THROUGH INNOVATION AND NURTURING SUSTAINABILITY

AETL manufactures enzymes that perform better than naturally occurring enzymes. This means they can be more active, specific, stable, and tolerant to different environmental conditions. In addition, there are many other factors to count on that make AETL stand out from competitors in this field.



EXPERIENCE AND EXPERTISE

With over 25 years of specialised technical expertise in microbial fermentation, your Company's team possesses a wealth of knowledge in manufacturing. Its proven track record in enzyme development, starting from just seven enzymes in 1994 to now over 68, showcases the unmatched expertise in this field. Moreover, your Company's decades of experience in solving customer problems and invaluable product and process insights have provided it with a unique perspective and understanding of the industry. In short, this expertise is not just theoretical knowledge, but rather a culmination of years of hands-on experience in the field.



TEAM CAPABILITIES

Your Company is always focussed on seizing growth opportunities and offering continuous solutions to its clients. The biggest challenge faced is the high entry barrier since it requests real time R&D with continuous upgrade given the technical and specialised nature of the business. Your Company's large manufacturing capabilities, experienced promoters, integrated value chain of in-house development of products, and manufacturing and marketing helps it to stand out from competitors.



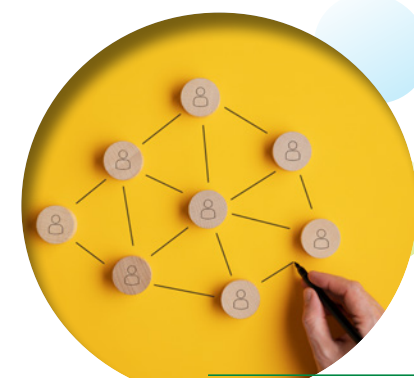
STRONG RESEARCH & DEVELOPMENT

Your Company possesses strong R&D capabilities towards developing new products. This showcases its ability to innovate and improve the enzyme products as well as the discovery, development and optimisation of new enzymes. The strong R&D capabilities also serve as a catalyst for growth and create healthy competition with the top players in the market.



INTEGRATED PLAYERS WITH PRESENCE ACROSS THE ENZYME VALUE CHAIN

As per customer requirements, your Company offers a wide range of enzymes. Over the years your Company has constantly improved its fermentation capacity. It always intends to create various formulations through R&D and strives to invest to build its portfolio in focussed application and industry.



INHERENT DIVERSIFICATION IN THE BUSINESS MODEL

Your Company offers an extensive range of enzyme products that find application in various industries. These include textile, paper and pulp, leather, baking, nutrition, pharmaceutical, human and animal healthcare. This helps in reducing the risk of imbalance in any single market. Diversification in the business helps in increased stability and growth.



SIGNIFICANT FOCUS ON INTERNATIONAL MARKETS & BRAND BUILDING

As your Company analyses its current business landscape, it is evident that its international markets hold great significance in driving our overall revenue growth. With 53% of its total revenue originating from these markets, it is imperative that AETL allocate significant focus and resources towards expanding its presence and brand building efforts internationally. By doing so, your Company can not only solidify its position in existing markets but also tap into new and emerging markets to unlock further growth potential. By placing significant focus on international markets and brand building, AETL plans to harness the potential of these markets and drive sustained revenue growth.



CORPORATE STRUCTURE



Note:
1. Advanced Enzymes currently holds 89.83% in JC Biotech
2. Dynamic Enzymes Inc. (USA) merged with Advanced Supplementary Technologies Corporation (USA) during the year 2023

CHAIRPERSON'S MESSAGE



We strive to stay ahead of the curve and create innovative products that reflect our commitment to sustainability while meeting our customers' evolving needs. Our focus on innovation enabled us to develop eco-friendly and highly effective enzyme products that cater to the evolving needs of our customers.



DEAR SHAREHOLDERS,

As Chairperson of your Company, I am proud to report our first integrated annual report for the fiscal year FY 2022-23. Despite global challenges, our team's dedication and hard work enabled us to maintain a strong market position.

In the past two years, we have seen a significant transformation in human behavior, particularly in terms of adopting a healthier lifestyle. We strive to stay ahead of the curve and create innovative products that reflect our commitment to sustainability while meeting our customers' evolving needs. Our focus on innovation enabled us to develop eco-friendly and highly effective enzyme products that cater to the evolving needs of our customers. All this transformation has led to a growth in the nutraceuticals market.

Power of technology and R&D

Some notable breakthroughs achieved in FY 2022-23 include the development of next-gen engineered proteins for biocatalysis, human/animal nutrition and food. Promising commercial results were obtained in enzyme development for API intermediates. We were also granted patents for an enzyme/probiotic complex to promote protein digestion, a soya protein concentrate preparation, and an oil extraction method from oil palm fruits using enzyme compositions.

Key Developments during the Year

- We witnessed growth in the Asian market from animal healthcare products
- We invested ₹ 60 million for 50% stake in Saiganesh Enzytech Solutions (SESL). We believe obtaining a reliable and high-quality intrastate supply of a vital digestive enzyme enhances our ability to deliver consistent and superior formulated solutions for human health, nutrition, and the food industry
- We acquired an additional stake of 4.83% in our subsidiary, JC Biotech, resulting in a total stake of 89.83%
- We launched Wellfa, our B2C brand focused on human health and well-being
- We introduced several new products throughout the year, including: enzymes for producing chiral/non-chiral molecules; Pepzyme Pro, clinically proven product for optimizing protein digestion, uptake, and gut modulation; SacchariSEB ML for easily absorbable dietary fiber production; and Code T-400, designed to enhance tea properties

Moving ahead as a pre-eminent enzyme manufacturer, AETL is well-positioned to thrive in the growing global market. The market is being driven by trends such as the shift towards proactive/preventative healthcare, the growing importance of nutraceuticals, and the need for cleaner nutrition alternatives.

Financials

Despite economic challenges, our Company achieved financial results with a total net revenue of ₹ 5,406 million. Our EBITDA was recorded at ₹ 1,564 million, a 22% decline, and PAT was seen at ₹ 1,039 million, a 16% decrease as compared to previous year. This decline is due to constant fluctuation in input material prices and elevated fuel costs, which resulted in a higher operating cost for the Company. However, we are optimistic about our business fuelled by changing preferences and industry dynamics. Aligned with these developments, we are launching new products and exploring opportunities in nutraceutical and cosmeceutical segments. We also have strong connections with API manufacturers for long-term financial stability.

Challenges Leading Towards Landscape of Opportunity

The business environment is filled with challenges, ongoing supply chain disruption and uncertainty, cues of a potential recession leading to layoffs, and sluggish consumption. Inflation remains high, and geopolitical crises continue to fluctuate, adding to the uncertainty.

However, there are some positive signs as raw material prices and freight costs ease. This will reflect growth and help in stabilization in the coming quarters. Despite the challenges, our financial results showed an improved top-line growth, driven by animal nutrition and bio processing segments. However, elevated operating costs impacted profit margins, highlighting the need for continued focus on cost management in these uncertain times.

We are ready for the next leap with a strong pipeline of enzymes and probiotics developed for various industries, and improved tools for generating recombinant strains. Our top priority will be to develop enzymes to promote healthy aging, modify proteins, process juices and beverages, and improve guar gum processing. We aim to expand our enzyme library for biocatalysis, probiotics library for dairy applications, and create probiotic-postbiotic-prebiotic products for multiple uses.

Closing Note

Moving ahead as a pre-eminent enzyme manufacturer, AETL is well-positioned to thrive in the growing global market. The market is being driven by trends such as the shift towards proactive/preventative healthcare, the growing importance of nutraceuticals, and the need for cleaner nutrition alternatives. Additionally, research and an emphasis on customer experience and innovation are creating a fertile environment for success. Our commitment to innovation, sustainability, and a wide product portfolio, along with our leadership and investment in R&D, ensures that we continue to create value for our stakeholders, resulting in a mutually beneficial outcome.

I, along with my leadership team, would like to thank everyone associated with the Company, including board members, employees, shareholders, suppliers and all other stakeholders for believing in us. I look forward to working together to achieve our goals and create a brighter future for all.

With my best wishes,

V. L. RATHI
(Chairperson)

NAVIGATING OUR WAY TO SUCCESS: OPPORTUNITY LANDSCAPE

AGEING POPULATION

As individuals age, their immunity is likely to be adversely impacted due to a decline in their Natural Killer cells (NK cells). However, probiotics may serve to enhance and regulate some of these processes, ultimately leading to improved NK cell function within the body. Specifically, lactic acid bacteria (LAB) and bifidobacteria, which are present in the gut of both humans and animals, are types of beneficial bacteria commonly found in probiotic supplements. To cater to the demand and opportunity, your Company offers an extensive range of probiotics solutions that help in regaining the NK cells in the body. There is thus significant potential for growth in the field of human healthcare, with the ageing population as a driving factor.

INCREASED FOCUS TOWARDS CHEMICAL-FREE PROCESSES

The nation is progressively shifting its focus toward chemical-free methodologies, and transitioning to more ecologically sustainable products. This trend is predominantly driven by customers who demand safer, and more eco-friendly processes.

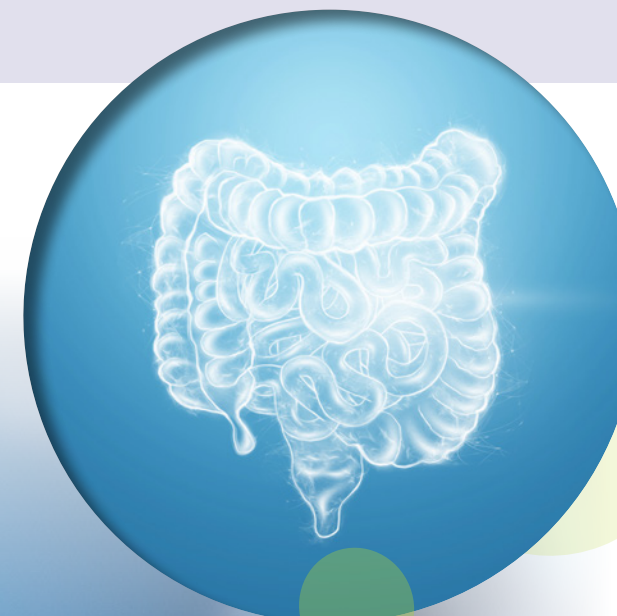
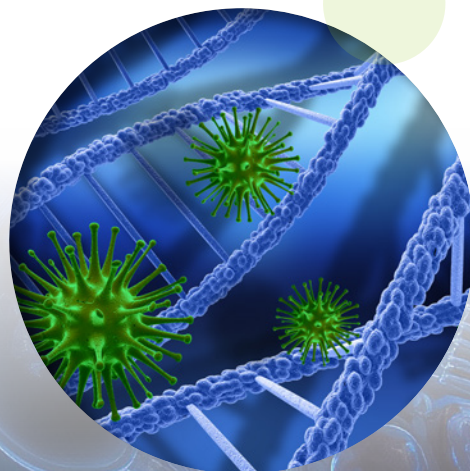
As a research-oriented enterprise, your Company is firmly committed to replacing conventional, potentially hazardous chemicals with benign enzymes in pursuit of its overarching mission. This is done by focussing on sustainable processes. AETL is uniquely positioned to capitalise on this trend and drive its revenue growth.

GROWING PREVALENCE OF DIGESTIVE DISORDERS

Human bodies create digestive enzymes, which are substances that aid in food digestion. This helps in the breakdown of proteins, carbohydrates, and fats and makes it possible for the minerals in our food to be absorbed into the bloodstream. This supports in the functioning of all the cells in the body. Changing lifestyles are making it difficult to balance digestion and therefore, maintaining of overall well-being. There is thus a need for products that help in the process of digestion. This is fuelling the growth of the digestive enzyme market and AETL is ready to meet this demand.

PRIORITISATION OF A HEALTHIER LIFESTYLE

Individuals are gravitating towards adopting a wholesome way of living. They are exploring novel avenues to accommodate physical activity and prioritise their well-being. There is thus a high demand for pioneering health and wellness solutions, which is driving the growth of companies operating within this domain. Notably, the human health and wellness sector which currently constitutes over 66% of the total business, is indicative of the profound impact of this trend on organisational expansion. The market holds immense potential as the masses prioritise healthier lifestyles. In this positive landscape, AETL is delivering eco-friendly products to the industry thereby driving the well-being of society.



HOW YOUR COMPANY IS POSITIONED TO BENEFIT FROM THE KEY TREND

AETL is among the largest and most reputed enterprises in its field of work. The extensive integration of innovative technologies, and commitment to researching and developing sustainable products have given AETL a significant advantage. As a result, we have developed several key strengths, including:



**Diverse business
verticals catering to a
variety of industries**



**Larger presence
in the human
healthcare market**



**Research on the
development of
biocatalysts**