

MANAGEMENT DISCUSSION AND ANALYSIS

Economic Review

Global Economy

The year 2021 started on a positive note with the successful rollout of the vaccination, leading to relaxations in movement across the globe resulting in economic recovery, supported further by various fiscal measures taken by the governments of various countries. However, the recovery momentum of supply chains across the world was disrupted due to the outbreak of newer variants of the virus, amping up crude and other material prices. The US Fed decided on tightening monetary policy towards the end of the year, impacting the economic outlook. After a contraction of 3.1% in 2020, the global output reported a growth of 6.1% in 2021¹.

Robust consumer spending and an increase in investment were the key drivers of global output rebound in 2021. Goods trade recovered and surpassed the pre-pandemic level. However, as the benefits of fiscal and monetary stimulants faded and significant supply chain disruptions materialised, the pace of development slowed down significantly, affecting key economies including China, the European Union, and the US. Most emerging nations and economies in transition witnessed reduced growth momentum.

After a contraction of 3.4% in 2020, owing to the widespread impact of the pandemic, the US economy rebounded faster and reported a growth of 5.7% in 2021². A flurry of government spending helped put the economy back on the growth trajectory, despite the occasional hindrances created by

¹ Source: IMF April 2022 WEO

² Source: IMF April 2022 WEO

the spread of newer variants. However, the surging inflation saw the US Fed take the rate hike route to tame it. The cumulative savings that were generated because of earlier stimulus payments, additional unemployment benefits, and extended benefit coverage have increased significantly and are anticipated to continue helping economic recovery.

The emerging and developing economies saw diverse economic performances. Countries with a strong exposure to export of goods reported significantly better recovery in economic activities, while those heavily reliant on the tourism sector had a difficult time. The rollout of vaccination was also uneven in these economies. Inflation remained strong as well, driven by higher commodity prices. The emerging and developing economies registered a growth of 6.8% in 2021³, from a 2% degrowth in 2020.

Outlook

The growth outlook of 2022 has been severely impacted by the Ukraine-Russia war that broke out in February. Apart from the significant loss of human lives, there's been a negative impact on crude prices and commodity prices, further contributing to the rising inflation across countries. Even before the war, inflationary pressures led to the rollback of fiscal measures by several governments, including a hike in interest rates.

Indian economy

2021-22 started on a sombre note as the pace of recovery was derailed by the emergence of the Delta variant. Localised lockdowns impacted social and economic activity in the first quarter of the

6.9%
GROWTH OF INDIAN
ECONOMY EXPECTED BY
2022-23

³ Source: IMF April 2022 WEO

financial year. The accommodative stance adopted by the Reserve Bank of India helped in sustaining the recovery momentum. This, along with the nationwide-eased restriction and the restart of social as well as economic activities, led the country to report a 8.7% growth (Source: NSO, GoI).

The government has been proactive in taking measures to drive investment-led growth. The massive push towards infrastructure and the initiatives to encourage manufacturing through PLI schemes are the key drivers of growth in the country.

Outlook

Owing to strong domestic demand, India is positioned attractively despite the short-term challenges. The government's continuous focus on investing in infrastructure projects is expected to have multiplier effects on the economy.

However, the ongoing challenges in the external environment introduce downside risks to the growth projection in the near term. According to OECD, the Indian economy is expected to expand by 6.9% in 2022-23. Headline inflation, which was a cause for worry, has started to cool off with RBI's increasing interest rates. The threat of a new variant of the virus also poses a potential risk in recovery.

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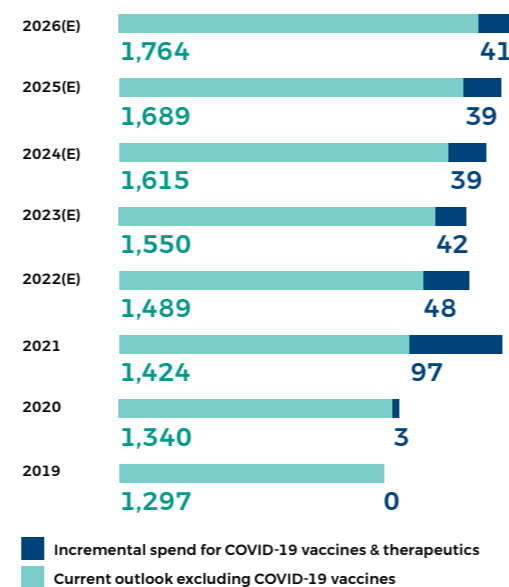
Business Review


Pharmaceutical

Global Pharmaceutical Industry

According to the IQVIA™ Institute for Human Data Science, the global spending on medicines based on invoiced prices is expected to see a 3-6% CAGR over 2021-2026, to reach \$1.8 trillion by 2026, which includes spending on COVID-19 vaccines and novel therapeutics. This growth is driven by multiple factors. For example, there are 55-63 new active substances (NAS) expected to be launched every year by 2026. This is projected to add \$196 billion in spending. The pandemic has added \$300 billion in spending on vaccines and novel therapeutics over 2020-2026. In addition, the growth in market size in pharmerging² countries is expected to play an important role in the future.

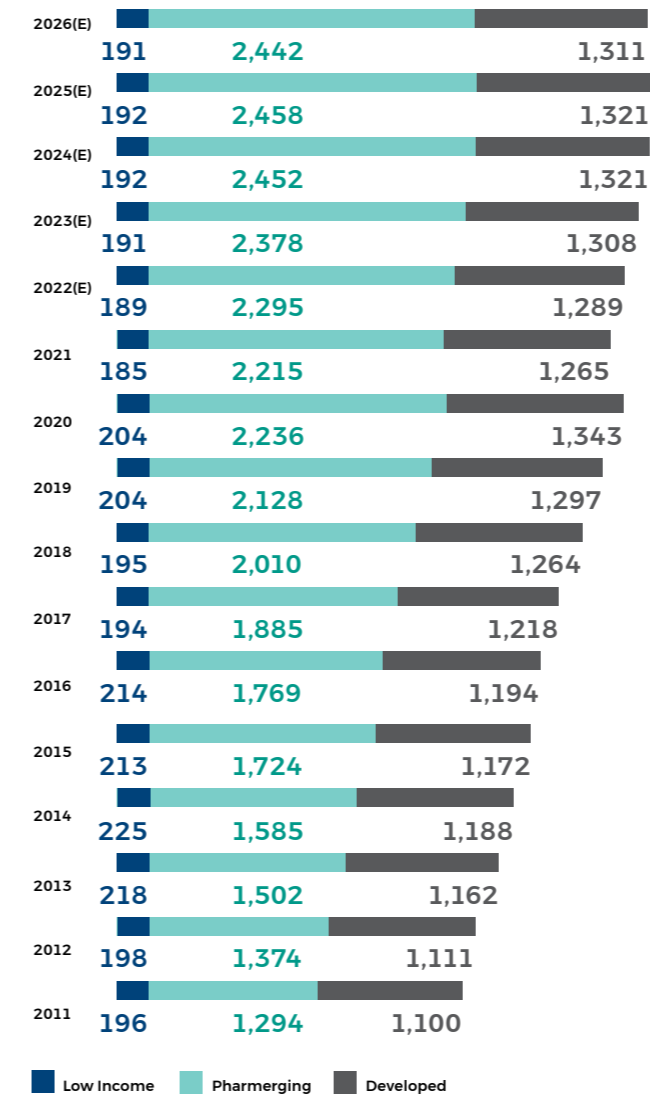
Changes in the projected global medicine spending model due to COVID-19, 2019-2026, in \$bn



Source: The Global Use of Medicines 2022: Outlook to 2026, IQVIA institute for Human Data Science, 2022

²Pharmerging countries are defined as countries with per capita GDP below \$30,000 in 2020 and forecasted 5-year aggregate pharma sales growth of more than \$1 billion for at least two forecasts.

Historical and projected use of medicine by market segment, 2011-2026, Defined Daily Doses (DDD), in \$bn



Source: The Global Use of Medicines 2022: Outlook to 2026, IQVIA institute for Human Data Science, 2022

Growth by Market Segment

The growth in developed countries is expected to be steady at 2-5% CAGR through to 2026, with the impact of new products offset by the expiry of patents and exclusivity losses. The US market is forecasted to grow by 0-3% CAGR over the next five years, while expenditure in European markets is expected to increase by \$51 billion, with a focus on generics and biosimilars.

Pharmerging countries are expected to be the biggest drivers of growth with a 5-8% CAGR through to 2026, a result of the increased spending on branded products, diffusion of technology, and

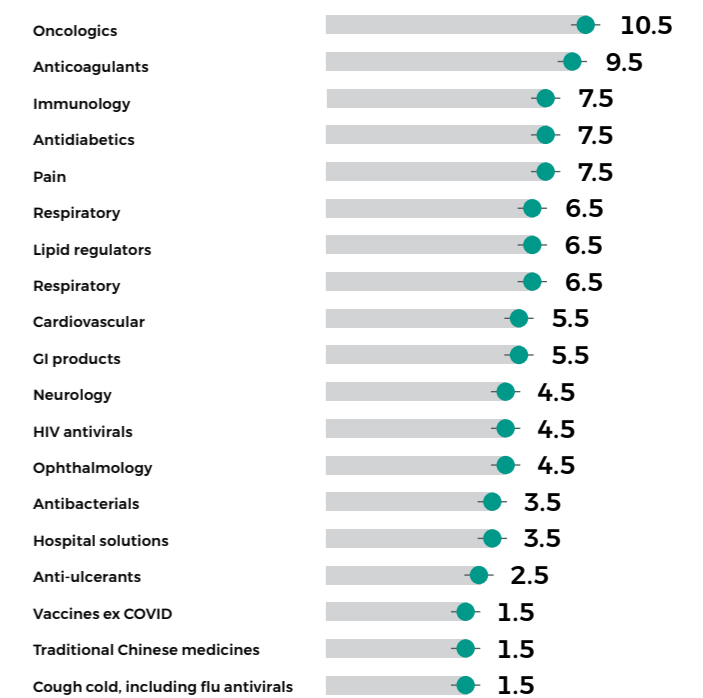
adoption of new treatments. China is expected to grow by \$128 billion because of greater uptake and use of new original medicines.

Lower-income countries remain the smallest-projected market segment growing at 3-6% CAGR through to 2026. Access to healthcare and the development of competitive healthcare markets in these countries are expected to see an increase in long-term growth.

Growth by Therapeutic Area

Oncology and immunology remain the two leading and fastest-growing global therapy areas, forecasted to grow at 9-12% CAGR and 6-9% CAGR, respectively, through 2026. The next two fastest-growing therapies areas are anti-diabetics and neurology. Neurology is expected to grow at 3-6% CAGR to \$151 billion by 2026. This is driven by the expected approval of new therapies to treat neurological disorders such as Alzheimer's, migraines, depression, and anxiety.

Top therapy areas by 2026 in terms of forecasted 5-year CAGRs, in %



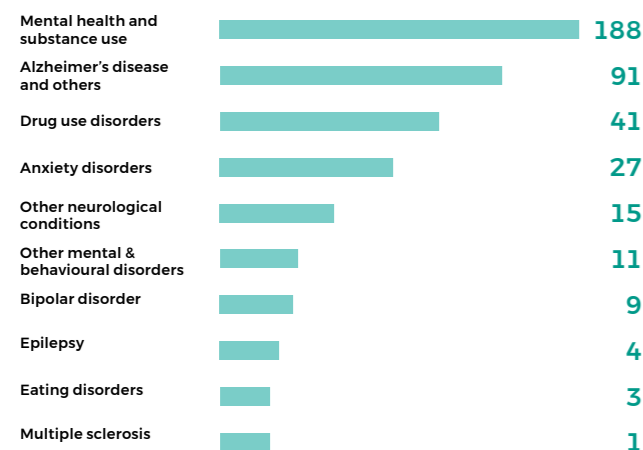
Source: The Global Use of Medicines 2022: Outlook to 2026, IQVIA institute for Human Data Science, 2022

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The burden of neurological disorders has seen a rise in the last 10 years, with Alzheimer's and migraines having the largest disease burden amongst the disorders. This is expected to increase spending on neurological therapies. In the last five years, several treatments for neurological diseases have been approved, making the market condition favourable. Similarly, the burden of disease of mental health disorders has also worsened, with depression and alcohol use disorder leading the way. In addition, recent scientific advances in genomics, biomarkers, and diagnostics, combined with the emergence of digital technologies, are expected to increase the size of market.

Change in DALYs of CNS disorders, 2010-2019, in DALY mns



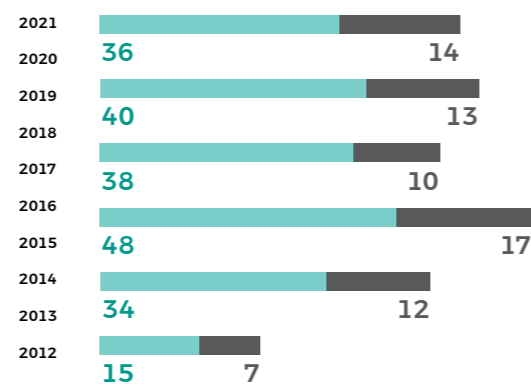
Source: based on data from the World Health Organization (WHO)



FDA Drug Approvals

The U.S. FDA's approval count in 2021 was in line with recent trends, despite the persistence of the COVID-19 pandemic. FDA's Centre for Drug Evaluation and Research (CDER) approved 50 novel therapeutics in 2021, compared to the 53 in 2020 and 5-year average of 51 drugs per year. Now midway through 2022, the FDA has approved 16 novel drugs. This is slightly lower than 2021's mid-year approval count of 25.

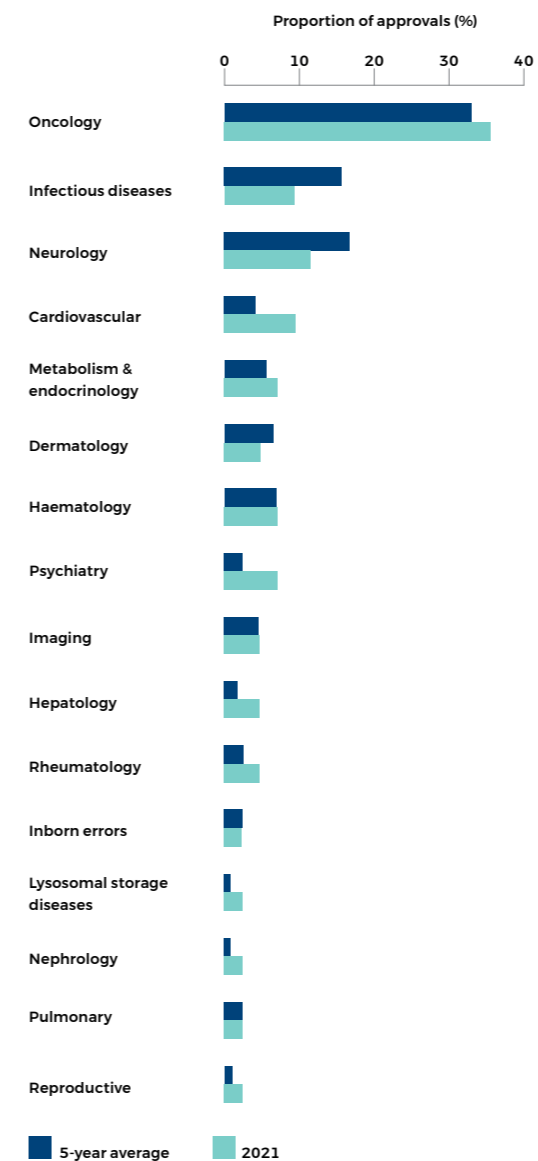
CDER's Annual Novel Drug Approval, 2012-2021



■ NMEs ■ BLEs
Source: CDER, FDA, 2022

The 50 novel drugs approved in 2021 were divided between 36 New Molecular Entities (NMEs) and 14 Biologics Licence Applications (BLEs). Cancer approvals still dominate, accounting for 15 of the new approvals. Neurology drugs secured the second-most approvals, with 5. Infectious diseases and cardiovascular diseases tied for third, with 4 approvals each. Out of the total drugs, 34 received priority reviews for therapies that the FDA expects to offer 'significant improvements' over the standard of care.

CDER approvals by selected therapeutic area



Source: Nature Reviews Drug Discovery, FDA

Pharmaceutical R&D

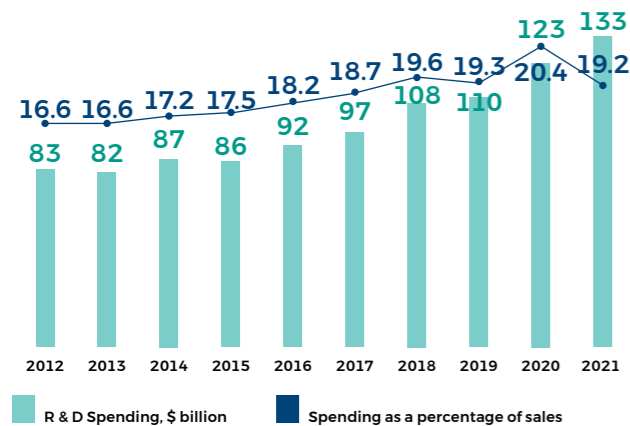
According to the IQVIA™ Institute for Human Data Science, the world's top 15 pharmaceutical firms invested a record \$133 billion in 2021 in R&D expenditure—an increase of 44% since 2016—and maintained a level of investment close to 20% of their recorded sales. A record 84 novel active substances (NASs) were launched globally in 2021, reflecting the strength of the healthcare system to discover and develop new therapeutics.



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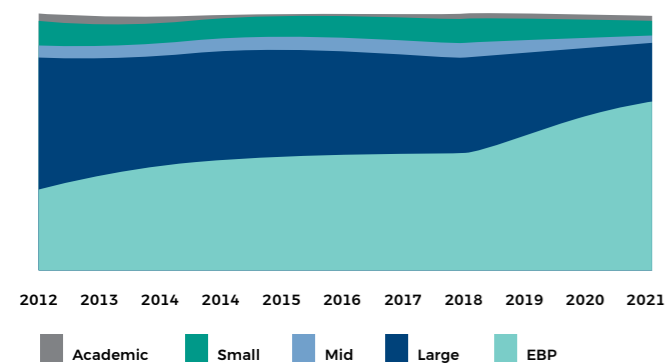
Large pharma R&D spending and spending as a percentage of sales 2012-2021, in \$bn



Source: Global trends in R&D, IQVIA institute for Human Data Science, 2022

At the same time, there is an increasing involvement of emerging biopharma (EBP) companies⁴, while large pharma⁵ companies represent an increasingly smaller share of the R&D pipeline. The growth in R&D expenditure is one of the major factors behind the rising expenditures in the global drug discovery services market. In addition, growth in biologics and expiry of patents are expected to provide opportunities for players in the drug discovery services market.

Share of Phase I to regulatory submission pipeline by Company segment, 2012-2021



Source: Global trends in R&D, IQVIA institute of Human Data Science, 2022

⁴ Emerging biopharma (EBP) companies are defined as those with less than \$200 million in R&D spending and less than \$500 million per year in annual revenue.

⁵ Large pharma companies are those with greater than \$10 billion in annual sales.

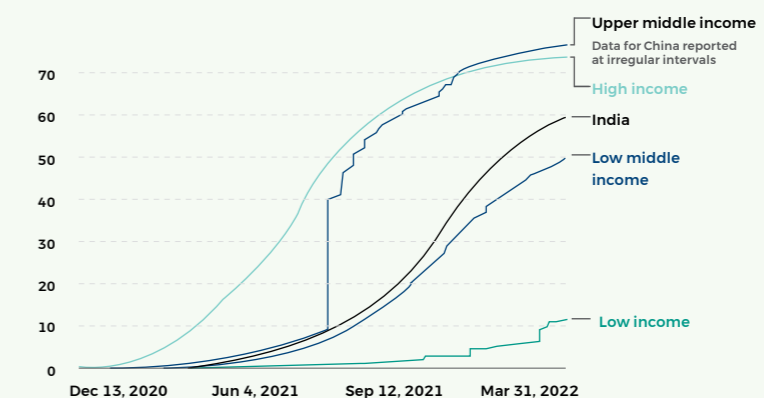
Impact of COVID-19

The persistence of the COVID-19 pandemic presented key challenges across global healthcare systems. An additional immediate impact of the pandemic was disruptions in medicine use, though it was uneven across geographies. Emerging countries observed volatility in medicine use, whilst developed countries were relatively stable. Even as the pandemic persisted, global healthcare systems proved resilient and were able to return to pre-pandemic levels. According to the Global Use of Medicines 2022, released by the IQVIA™ Institute for Human Data Science, the immediate impact of COVID-19 was a cumulative reduction in spending of \$175 billion through 2026, compared to the pre-pandemic outlook.

By the end of 2021-22, around 58% and 65% of people are fully vaccinated and have received a single dose of the vaccine, respectively. With improved capacity and faster knowledge diffusion, the vaccine gap between rich and poor nations is expected to reduce over time. COVID-19 is expected to increase medical spending by \$300 billion over 2022-2026 in the form of vaccines and novel therapeutics. The COVID-19 vaccine alone is projected to generate \$251 billion through 2026. Annual booster shots are expected to increase COVID-19 vaccine spending even further.

Recent research indicates exposure to COVID-19 could have debilitating long-term effects. 'Long COVID' is reported to afflict 15-30% of the population, though the figures vary. COVID-19 is now understood to be a multi-organ disorder which can be acute or chronic, or both, and may vary in terms of severity. Apart from the impact on those affected by COVID-19, the pandemic has had notable health impacts on non-COVID patients as well. Notably, the pandemic is expected to have led to the rise in mental health disorders and the adoption of sedentary lifestyles.

Percentage of the total population fully vaccinated against COVID-19, by region, in %



Source: Vaccination trends to date from Ourworldindata.org Accessed 23 June 2021

Summary of expected impact of the COVID-19 pandemic on patients and therapeutics



Population level mental health:

- Depression/anxiety, stress disorders
- Substance abuse/dependency



Conditions:

- Lasting effects in more severe disease when diagnosed, such as cancer
- Greater rates of chronic disease
- Obesity, Type-2 diabetes, and heart disease rates increased due to reduction in activity



Impact on infectious diseases:

- Seasonal flu could result in more virulent strains in the future
- Increased interest in treating other pathogens with pandemic potential
- Vaccine hesitancy spreads to others infectious diseases

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Indian Pharmaceutical Industry

According to IBEF, the Indian Pharmaceutical industry achieved a market size of \$42 billion in 2021. The Economy Survey of India 2022 estimates that the pharmaceutical industry is expected to become thrice its present size by 2030. In other words, it is expected to grow to \$120 billion by 2030, at a CAGR of 14.2%⁷. The growth is driven by India's comparative advantage in cost, regulatory compliance of Indian firms and a business-friendly policy landscape. A promising sign of this anticipated growth is the rise in FDI inflows in recent years. Cumulative amount of FDI equity flows have increased by \$3600 million since 2017.

Cumulative amount of FDI Equity Inflows in drugs and pharmaceuticals starting from April 2016 and ending 2021, in \$mn

2020-21	19,197
2019-20	17,746
2018-19	16,396
2017-18	15,934
2016-17	15,585

Source: based on various reports of DPIIT.

⁷Source: Economic survey of India 2022, GOI

International Trade

The Indian pharmaceutical industry is a significant global player. India is the 12th largest exporter of medical goods in the world. It constitutes 6.6% of the total merchandise exports in the Indian economy. North America is the biggest export destination, followed by Africa and Europe. In terms of comparative advantage, India has the highest number of United States Food and Drug Administration (USFDA)-compliant pharma plants outside of the USA⁸. In addition, India is the largest supplier of generic medicines, with a 20% share of the global supply. It is the low cost and high quality of Indian medicines that make them a preferred option worldwide.

⁸Source: FDA

India: The pharmacy of the world



The Indian pharma industry has grown 10x in last two decades:

Growth from \$4.2bn in 2000 to \$41.7bn in 2020

India is the 3rd largest global manufacturer of drugs

14th largest market in terms of value

India >10,500 pharmaceutical manufacturing facilities catering to demand from >150 countries in the world

India is the largest supplier of generic medicines: 20% share of the global supply of generic medicine

India has > 100 US FDA - approved pharma plants

Over 80% of ART drugs used globally to combat AIDS are supplied by Indian firms



Impact of COVID-19

Initially, COVID-19 had negative impact on the pharmaceutical industry caused by disruptions in supply chain, especially with the supply of KSMs and APIs from China. However, it created a high demand for COVID-19-related medical products such as vaccines, diagnostic kits, etc.

The Indian pharmaceutical industry played an important role in meeting the challenges of the pandemic. Domestically, the industry worked in close collaboration with the Government of India to rapidly supply the medicines needed during the second wave of the pandemic. Globally, the industry provided relief to 96 countries for vaccines.

Favourable Indian government policies

Pharma Vision 2020

Support for technology upgrades and FDIs

**Pharmaceutical Parks:
Set up of bulk drug parks to manufacture APIs**
**Production Linked Incentive (PLI):
PLI scheme encourages Indian manufacturers to produce KSMs, DIs and APIs**
Under Union Budget 2021-22, the Department of Health Research was allocated ₹26,630 million

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Active Pharmaceuticals
Ingredients (API) IndustryGlobal Active Pharmaceutical
Ingredients (API) Industry

The global API market is expected to see an increase in market size during this decade. An important expected key driver of growth is technological advancement. The integration of latest technologies such as AR/VR, artificial intelligence and additive manufacturing is expected to accelerate the R&D process, create more personalised products, and conduct testing in more innovative ways. This will enable the global pharmaceutical industry to grow over the long term. Another key driver of growth is expected to be the rising prevalence of lifestyle-related chronic diseases such as diabetes and cardiovascular diseases, as well as the rising need for pain-management drugs.

The API industry is truly a product of the 21st century, with supply chains spanning multiple countries for a single product. European firms have carved a niche as they continue to produce highly specialised and highly potent APIs. Their Asia-Pacific counterparts, on the other hand, specialise in the manufacturing of low-cost APIs.

Top pharmaceutical firms are responsible for a substantial push towards growth in the outsourcing segment. The low cost of production in countries like India and China make them ideal export partners. Outsourcing the production of APIs allows top pharmaceutical firms to save on costs and increase their profits.

Global API Market, 2021-2030, in \$bn



13%
CAGR

Source: Global newswire

Growth by Segment

The API market in the US is the largest market in the world and was estimated at \$71 billion in 2021. It is expected to grow to \$128 billion at a CAGR of 6% by 2027. This growth is driven by chronic lifestyle diseases such as cardiovascular diseases. For example, the Center for Disease Control (CDC) in the US estimates that six out of 10 Americans suffer from some form of chronic disease in 2022. China, the world's second-largest economy, is forecast to reach a market size of \$35 billion at a CAGR rate of 7.6%, which is higher than the global average. Europe is expected to grow moderately at a steady rate because of the size of the government in the healthcare sector there. The Asia-Pacific market was valued at \$56 billion in 2020 and is expected to reach \$105 billion by 2030 at a CAGR of 6.4%. As countries in the Asia-Pacific region prosper, their propensity for chronic lifestyle diseases and the corresponding willingness to pay for them is expected to increase, making them a lucrative market.

Active Pharmaceutical Ingredients market size,
2021-27, in \$bn

Source: Polaris Market Research Analysis

In terms of therapeutic application, the cardiovascular disease segment is the largest and is expected to reach \$68.8 billion in 2030 at a CAGR of 5.8%. The growth drivers are expected to be the rise in cardiovascular diseases globally and the growing desire to use APIs in manufacturing to treat it. There is scope of an increased market size for other therapeutic applications such as diabetes and age-related macular degeneration, owing to their growing prevalence globally.

The global API, based on the business mode used, can be segmented into captive and merchant. The captive API market is expected to grow to \$124 billion by the end of 2022. While the global captive API market is larger, the merchant API is projected to grow with a higher CAGR of 6.2% through 2026. This can be attributed to the increased desire for firms to outsource their production process to low-cost manufacturing countries such as India and China.

Indian Active Pharmaceutical (API) Industry

According to European Pharmaceutical Review, the Indian API market recorded a value of \$12 billion in 2021. It is expected to reach \$20 billion through 2026 at a CAGR of 12.2%.

The country's API industry is the third largest in the world and contributes 57% of APIs to the pre-qualified list of the WHO. In addition, India is the largest provider of generic goods globally, supplying 40% of generic demand in the US and 25% of all medicines in the UK.

The Indian pharmaceutical industry has historically focused on production of finished pharma goods, resulting in a negligence towards the manufacture of KSMs and APIs in the country. This has led to an increased reliance on China, with API imports reaching as high as 85%. According to the Confederation of Indian Industry (CII), India is dependent on China for the import of important medicines such as paracetamol and metformin. This has caused a shift in the pharmaceutical industry to boost manufacturing of APIs in India and become self-reliant.

Production-linked Incentive (PLI) Scheme

The Indian pharmaceutical industry is well positioned to overcome its import dependence, by taking advantage of the recent Government policies in India. One of the more important Indian government initiatives is the Production-linked Incentive (PLI) scheme which aims to increase the production of critical KSMs, DIs and APIs. The total financial outlay of the scheme is ₹150 billion from 2020-21 to 2028-29. It is also expected to lead to incremental sales of ₹2,940 billion and exports of ₹1,960 billion between 2022-23 and 2027-28. The PLI scheme is expected to add to India's comparative advantage and reduce import dependence of KSMs, DIs and APIs of Indian firms on the Chinese market.

Hikal's Opportunity Landscape

Favourable government policies for API production, geopolitical tensions, and the emergence of India as an alternative to China for downstream API production has boosted medium-term and long-term prospects for the industry. Increase in income levels has raised the need for access and demand for cost-effective and high-quality medicines. Recent supply chain disruptions have incentivised companies to reevaluate their export and import destinations. One of the ways companies are looking to de-risk is by reducing their import dependence on China owing to geopolitical tensions. The growing 'China-Plus One' sentiment across the global supply chains is an opportunity for countries like India to boost their exports of API products. The macroeconomic trends and the firm level factors indicate that Hikal is poised to experience growth in its API segment.

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Contract Development and
Manufacturing Organization
(CDMO) Industry

Global CDMO industry

According to Mordor Intelligence, the Global CDMO was valued at \$183 billion in 2021, and is projected to reach \$289 billion by 2027 at a CAGR of 7.2%. The biggest factor driving growth in the CDMO business is the increasing desire for a quick scale up and to bring products to market faster. However, with over 600 active CDMOs globally, the industry remains fragmented. The CDMO industry has few dominant players with 75% of the market controlled by small firms. Strong market competition has ensured that few firms have global reach.

Impact of COVID-19

The global CDMO industry was one of the biggest gainers during the COVID-19 pandemic. This was because the need for novel medical solutions was generated. The global initiative to develop and inoculate the world against the virus and the desire for COVID-19-related therapies brought about an increase in the outsourcing of production from global players. Pfizer, Moderna, and AstraZeneca publicly announced their large partnerships with a number of CDMOs, including Emergent BioSolutions, Catalent, and Lonza.

India

India is the world's best low-cost manufacturing centres, with the highest number of US Food and Drug Administration (USFDA)-approved manufacturing plants outside of the US. The Indian CDMO industry has been rapidly moving upstream with important players investing more capital. India is expected to become a key hub for the production of value-added products across the life-sciences value chain. The country's comparative advantage comes from having a chemistry-savvy workforce, a vibrant entrepreneurial ecosystem, and a robust infrastructure. This will also provide an impetus to the highly cost-efficient contract manufacturing setup in India.

CDMO India Growth Drivers

Manufacturing advancement

Prevalence of chronic diseases

Government policies

Favourable geopolitical changes

Supply chain disruption

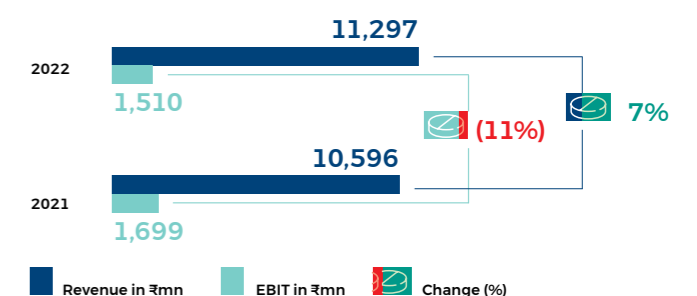
Hikal's Opportunity Landscape

The growth in international trade and increasing reliance on outsourcing has made cost-effective destinations like India attractive for growth. Recent geopolitical tensions and the emergence of India as an alternative to China has incentivised global firms to collaborate and use the CDMO services of Indian firms. The macroeconomic trends and the firm level factors make Hikal poised to experience growth in its CDMO segment.

Hikal—Performance of
Pharmaceutical Division

Our Company registered a positive volume growth despite a challenging year. We were able to grow our revenue from operations by 7% to ₹11,297 million, compared to ₹10,596 million last year. This growth was led by an impressive start to the financial year owing to a favourable product mix and our continued focus on operational efficiency. The rest of the financial year saw flat revenue growth, with figures remaining close to previous year's levels. This was partially because of slower offtake by our customers due to build-up of channel inventory as well as the higher-than-usual safety stocks during the COVID-19 pandemic. We expect to resume our normal revenue growth trajectory in the near future. This is because, during the year, we acquired several new generic customers and entered new global markets as well as key geographies in Japan and South America. In addition to this, we received an order for the validation of an intermediate for a potential drug from a global innovator Company.

Our EBIT recorded a decrease of 11% from ₹1699 million to ₹1510 million. Despite positive volume growth, our profit levels for our pharmaceutical division were weaker compared to last year. As for revenue from operations, we had an impressive start to the year. Constant external pressures on our Company during the remainder of the year led to input cost escalation of raw materials and energy thereby lower profits. From recurrent lockdowns in China to the Ukraine-Russia War, we were able to minimise the impact of rising input costs on our profit. This is a testament to HIBEX—our Company's business excellence initiative which is geared towards increasing productivity and lowering costs.

Consolidated Performance of
Pharmaceutical Division

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API

Our generic API business registered steady growth in new APIs with positive volume growth for all our key customers across existing as well as new geographies. Our new launches in the anti-diabetic therapeutic space witnessed favourable traction from our customers. We have a healthy portfolio of new products in the development pipeline and a robust plan for their launch in the near future. This is a testament of our desire to constantly grow our legacy products and provide better, improved healthcare to the public by adding new APIs as well.

We continued to make forays into new geographies. We strengthened our presence in Japan, Latin America, Middle East, and North Africa. A part of our long-term growth strategy is to expand our customer base globally as a leading global API supplier.

Capital expenditure of \$40 million was undertaken as part of our CAPEX programme that was announced two years ago. In the pharmaceutical division, we undertook capacity-building and upgradation in our R&T facilities based on the increasing inquiries this year. In addition, we also invested in new capacities at our Jigani (Bengaluru) and Panoli (Gujarat) sites to support the growing demand.

We made significant progress in manufacturing APIs at our Panoli site by commissioning a multi-product plant. This is a key part of our strategy to reduce and mitigate operation risks in the future.

We continued to focus on business excellence. Our efforts are concentrated on improving throughput and productivity and reducing costs to achieve improved operational efficiencies. With this approach, we successfully enhanced our throughput and reduced the costs of our products, which dampened the impact of rising input costs on our profitability.

Hikal aspires to be a global leader in several key APIs with a strong development pipeline and a focus on backward integration, continuous improvement in operations as well as costs. We are committed in our endeavour to provide regulatory and quality support for our global customers. Looking forward, we aim to maximise the sales of our APIs by enhancing our customers' share of wallet, entering new geographies, and increasing market share in select APIs where we have backward integration, scale, and technology as a comparative advantage. We believe our strategy will yield additional market share for our API products in the years to come.

CDMO

Hikal has developed several strategic and important partnerships with customers across the world by means of critical value-added services. This has earned us the trust of global innovator companies. Our continued focus on regulatory compliance and advanced technology capabilities continue to attract and retain global clients across the life sciences value chain.

As part of our contract development and manufacturing services, we offer several solutions across the product lifecycle, from early-stage R&T services through to pre-clinical, clinical, and commercial manufacturing. By combining advanced technology and chemical engineering solutions, we act as a 'one-stop' shop for our customers across the life sciences value chain.

Hikal witnessed good growth in the CDMO segment. This was by reason of the higher demand from our leading CDMO customers and the new contracts with key US and Japanese customers. Our CDMO business witnessed traction with a 20% increase in overall inquiries and an enhancement in win rate as well. We converted two KSMs for a new drug with a global innovator and secured an intermediate opportunity with another innovator. Our future pipeline for CDMO business remains strong with multiple visible opportunities.

To capitalise on existing market demand and future opportunities, we plan to actively add capacity and enhance our manufacturing capabilities. We have commissioned new capacities for our pharma CDMO business in our Unit-2 facility in Bengaluru for future development pipelines.

Over the years, Hikal has maintained its impeccable track record and has established strong relationships with several leading innovator companies. In the past two years, we have turned our focus on developing alternate sources of raw materials to reduce the dependence on China. More global pharmaceutical companies are looking to outsource production to companies like Hikal as they have confidence in our technical and manufacturing capabilities. Favourable geopolitical tensions and with the 'China Plus One' sentiment growing globally, India's outsourcing opportunities is seeing an increase.

We are confident in our ability to grow our CDMO business, and rapidly expand our capabilities in manufacturing as well as the handling of complex chemistries. We expect sustainable growth in our CDMO business through a healthy pipeline of new projects in early and late-stage development, a new client portfolio, and growth in the demand of existing supply to global innovator companies.



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 Animal Health

Global Animal Health Industry

According to GVR, the global animal health market was valued at \$39.9 billion in 2021 and is expected to grow at a CAGR of 10% through 2022-30. The industry is poised to experience high growth based on a boom in demand for protein and an increase in the incidence of zoonotic and food-borne diseases globally. According to the UN, global population is projected to reach 9.7 billion by 2050, and this is expected to put pressure on food supply systems worldwide. Since 34% of all protein food comes from livestock, zoonotic and food-borne diseases and pathogen contamination risks are expected to rise and prompt companies to produce advanced vaccines and pharmaceuticals.

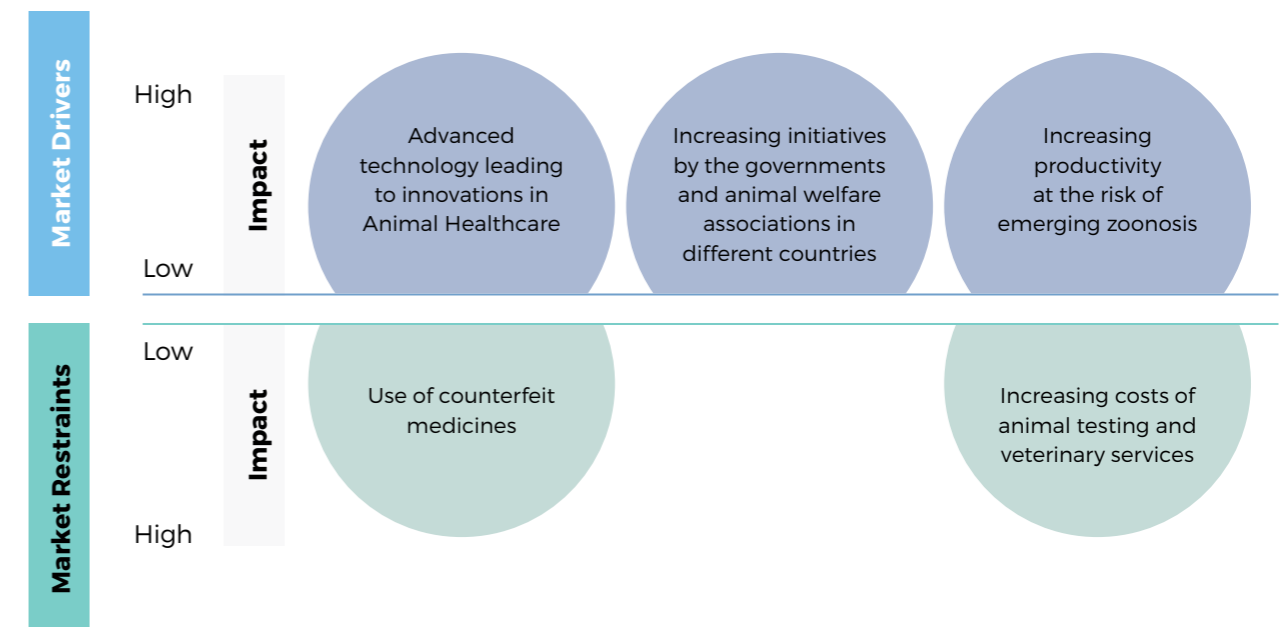
In terms of drug development and manufacturing, the animal health industry has some unique advantages over the human health industry. It is estimated that drug development for animals is 10-20 times cheaper and takes half the time compared to that for humans. All these factors make the global animal health industry well poised to be on a high growth path in the future.

Animal Health by Market Segment

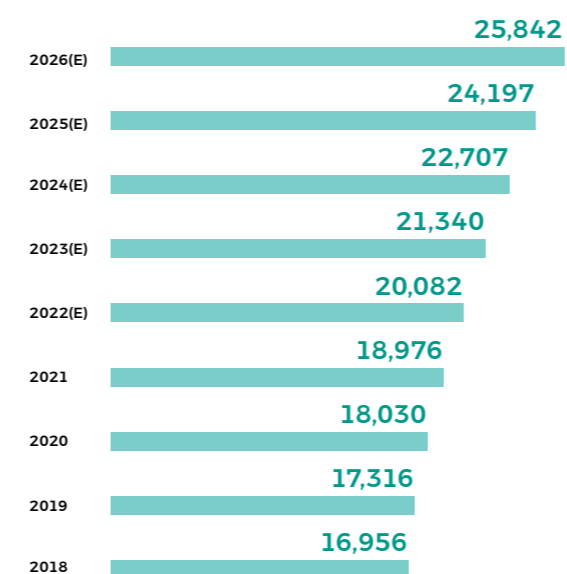
According to GVR, the animal health industry is led by the livestock segment, with over 50% of global revenue accruing to it in 2021. This is because of high concerns for food safety by local and global policymakers.

As per Mordor Intelligence, the farm animal healthcare market size was \$18 billion in 2020 and is expected to grow at 6.4% rate to reach \$26 billion by 2026. The growth of the global farm animal healthcare market is currently being driven by various factors, including the increased productivity, higher awareness, and technological advancements, among others.

Market dynamics of farm animal health market



Global farm animal healthcare market, 2018-2026, in \$mn



6.37%
CAGR

Source: Mordor Intelligence

As per Grand View Research, the companion animal market segment is a high-growth market, accounting for \$19 billion in 2020 and projected to double by 2028. The market growth can be attributed to advanced vaccines and pharmaceuticals to treat rising global prevalence of target diseases. There has been an increase in the number of companies leading to high demand for animal products and collaborative efforts to improve contamination risks with pathogen as well as food borne diseases, thereby contributing to the market growth. It is also driven by growing awareness of pet nutrition, especially in the Asia-Pacific region. Pet ownership is on the rise globally, estimated at more than a billion worldwide²¹.

²¹Global Trends in the Pet Population - HealthforAnimals

MANAGEMENT DISCUSSION AND ANALYSIS

Business Review

Market dynamics of companion animal market



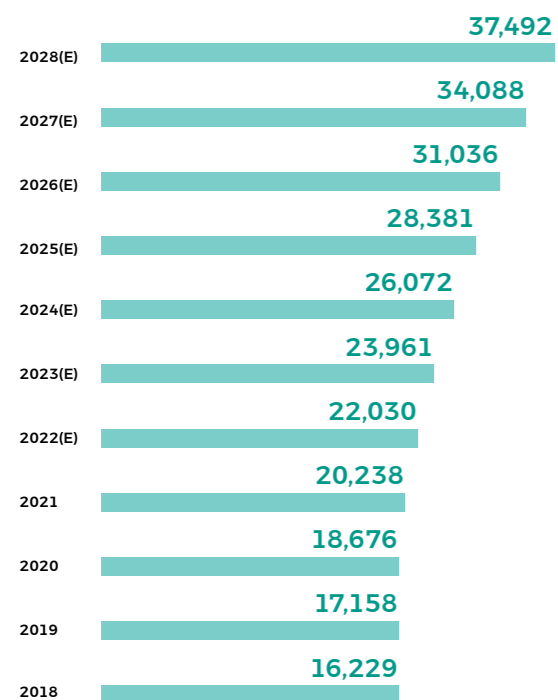
Drivers

- Growing companion ownership
- Increasing number of government initiatives
- Increasing prevalence of zoonotic diseases



Restraints

- Increasing in the number of counterfeit drugs
- High per care costs

Companion animal health market,
2018-2028, in \$mn

Source: WHO, US, CDC, FDA, Investor Presentations, Primary Interviews, Grand View Research

Impact of COVID-19

Despite short-term disruptions, COVID-19 is expected to have an unforeseen beneficial impact on the animal health industry. The lockdowns increased pet ownership globally. According to PFMA, more than 2 million people adopted a pet during the lockdown in the UK. According to AMAU, similar figures were reported during the lockdown in Australia, with pet ownership rising by 8% compared to pre-pandemic levels. This is expected to increase the demand for companion pharmaceuticals and boost growth.



Indian Animal Health Industry

According to IMARC Group, the Indian animal health market was valued at ₹68 billion and is expected to grow at a CAGR of 9.5% through 2027. The reasons for growth are expected to be the rise in zoonotic diseases, a thriving veterinary pharmaceutical industry, and the emergence of a middle class. As with the global animal health industry, a rise in pet ownership is expected to drive growth in the Indian animal health industry. According to INFAH, the species share in the Indian animal health industry is dominated by livestock animals, at 55% presently, followed by 33% of poultry. Companion animals constitute 8% of the market, with the segment expected to rise exponentially in the future.

The Government of India announced the formation of a dedicated Veterinary Cell at the Central Drug Standard Control Organization (CDSCO) in 2018. The existence of a regulatory framework is a positive step towards unlocking the growth potential of the animal health industry in India.

Hikal Opportunity Landscape

The animal health industry is well positioned to follow a sustainable growth path in global markets, and especially in emerging markets, where there is a rise in population pressure and living standards. The demand potential for innovation in animal health products will fuel the development of the animal health vertical for Hikal.

Our customers realise that partnerships and collaboration play an important role in building value. We believe that Hikal can build upon its capabilities to collaborate on joint development projects and manufacturing solutions for our partners.

Hikal – Performance of
Animal Health

Hikal built upon our milestone last year with the completion of our 10-year contract with a global innovator. The contract entails the development and supply of a portfolio of niche APIs over a period of 10 years. We plan to start revenue accrual post successful development and plant commercialisation from 2023-24, boosting our medium-term prospects.

Hikal holds the distinction of being the only GMP source with US VMF²⁶ for a drug used to treat dogs. We are also a leading manufacturer with a US DMF of a compound used to treat dogs, cats, and horses. In the intermediate space, we have developed Drug Intermediaries (DIs) which is used as a building block for a New Chemical Entity (NCE) under development. In addition, we were able to retain our key business commitments this year despite the supply chain disruptions. We are in the midst of discussions with several animal health companies to rationalise their disrupted supply chain. This should lead to additional new opportunities which can pivot this business segment to new heights.

With all these developments, Hikal has managed to enter the niche and specialised area of chemistry and technology. Our principles of transparency and trust, and commitment to deliver technologically superior products have helped us forge long-term relationships with our clients. We expect to expand and convert our existing capabilities into a significant contributor of revenues and profitability in the future.

We believe firmly that the future indicates accelerated growth for our animal health business, and our Company is well-positioned to capitalise on the opportunities at hand and the ones we will unlock.

²⁶ VMF stands for Veterinary Master File (VMF). It is a submission to the FDA's VCM that provides confidential detailed information about facilities, processes, or articles used in the manufacturing, processing, packaging, and storing of veterinary drugs and drug substances.

MANAGEMENT DISCUSSION AND ANALYSIS

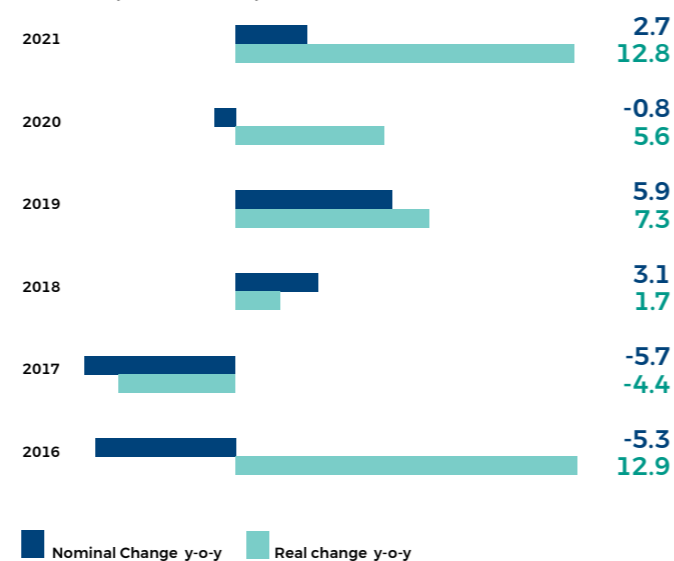
Business Review


 Crop Protection

Global Crop Protection Industry

According to IHS Markit, the market size of the Global Crop Protection chemicals²⁷ increased with a nominal y-o-y growth of 4.7% and achieved a value of \$65 billion in 2021. It is projected to reach \$74.1 billion by 2025 growing at a CAGR of 2.5%. The growth is expected to be driven by the booming global population. According to the UN, global population is projected to reach 9.7 billion by 2050, where food demand will only be met by the expansion of food production²⁹. About 85% of global crop output growth over the next 10 years is attributed to yield improvements resulting from more intensive input use, investments in production technology and better cultivation practices. This points towards the crop protection industry being on a high-growth path in the future.

Historical growth rates in Global Crop Protection market, 2016-2021, in %



Source: Agrochemical Market Analysis Industry Overview: 2021 Market, IHS Markit, 2022

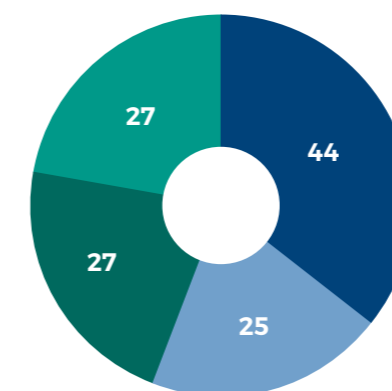
²⁷ This excludes sales of herbicide tolerant and insect resistant seed, as well as non-crop agrochemicals.

Growth by Segment

The Asia-Pacific region remains the largest crop protection market in the world, with 32% of the global market share. Followed by Latin America, North America, and Europe, with 25%, 21% and 17%, respectively. This is attributed to the large agricultural sector of countries in the Asia-Pacific and Latin American markets. The Asia-Pacific market reached a market size of \$21 billion, growing at a y-o-y rate of 8.3%. This growth was driven by China, which benefited from favourable agro-climatic conditions for rice production. The Latin American market notably declined to a market size of \$16.3 billion. An important reason behind this was the devaluation of Latin American currencies vis-à-vis USD and Euro, which reduced exports. Other important geographical markets such as North America and Europe grew favourably at a y-o-y rate of 7.3% and 7.1%.

In terms of product type, the industry is dominated by herbicides, with market share at 44%. The herbicide sector was valued at \$28 billion growing at y-o-y rate of 5.4%. Fungicide sales increased by y-o-y rate of 4.3% and reached \$17 billion, representing a 27% share of the global crop protection market. Insecticides experienced a similar growth, rising by y-o-y rate of 4.2% to reach a market size of \$16 billion.

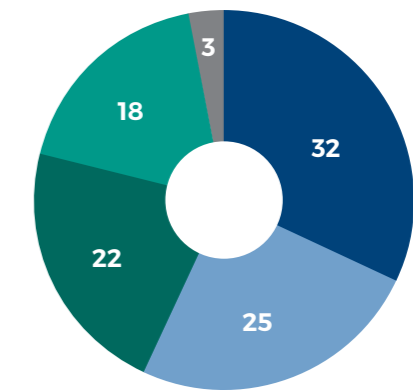
Global Crop Protection market by product, 2021, in %



Legend: ■ Herbicides ■ Insecticides ■ Fungicides ■ Others

Source: IHS Markit, 2022

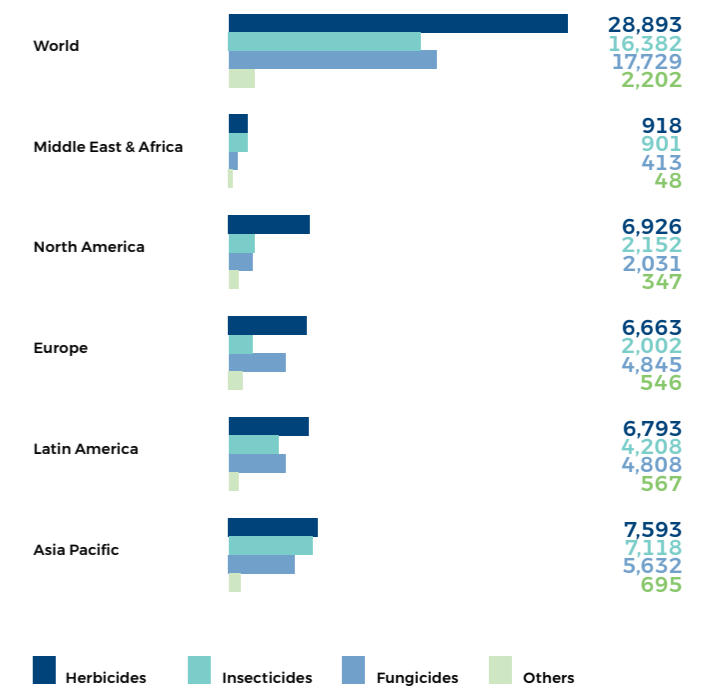
Global Crop Protection market by region, 2021, in %



Legend: ■ Asia Pacific ■ Latin America ■ Europe ■ North America ■ Middle East & Africa

Source: IHS Markit, 2022

Global Crop Protection market by region and product sector, 2021, in \$mn



Source: Agrochemical Market Analysis Industry Overview: 2021 Market, IHS Markit, 2022

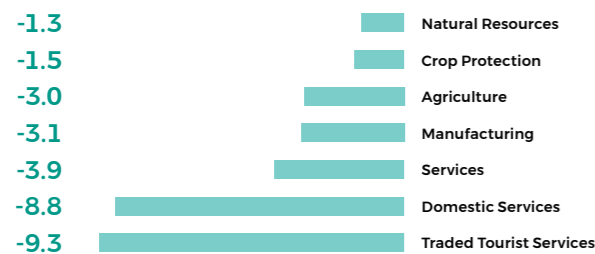
MANAGEMENT DISCUSSION AND ANALYSIS

Business Review

Impact of COVID-19

The COVID-19 pandemic had a relatively weak impact on the industry, as agro-products were classified as essential goods, as show in the graph. Some products within the crop protection industry did get adversely impacted because of a decrease in migrant farm labour, shipment delays etc. due to the pandemic.

Estimated impact of COVID-19 on various industries, 2021



Source: working paper, world bank



Indian Crop Protection Industry

According to IHS Markit, the Indian Crop Protection Industry achieved a market size of \$3 billion, growing at 7.7% y-o-y. The recent growth was driven by an improvement in domestic demand and the high prices of chemicals. Globally, India is the fourth-largest producer of agrochemicals after US, Japan, and China. Additionally, India holds a strong position in the export and import of chemicals at global level, ranking 14th in exports and 8th in imports (excluding pharmaceuticals). India's proximity to the Middle East—the world's petrochemicals feedstock—allows it to benefit from economies of scale. The Indian crop protection industry is expected to experience high growth this decade for the following reasons:

'China Plus One' Strategy

Increasing environmental regulations in China has increased regulation risk for companies operating in the region. This adds to the existing geopolitical risk that China faces. As a result, several global companies are seeking options in emerging and developing economies such as India, Vietnam, and others. Thus, this presents an immense opportunity for growth in the coming years.

Increasing Genericismation

The past few years have seen more global companies relying on off-patent chemistries where the cost of development is low. This is expected to be an important driver of growth for Indian companies that have significant manufacturing capabilities for producing generic drugs.

Shift in Consumer Habits

As societies become more affluent, there has been a shift in demanding products with higher nutrition and better quality. This makes the Indian crop protection industry well-placed to benefit in the long term.

Hikal Opportunity Landscape

Approximately 70% of the global market is dominated by generics and the rest is accounted for by proprietary products. In the generics segment, countries like China and India have a big presence. The rate of new active ingredients entering the market has significantly declined because of long product development cycles, huge investments, and strict regulations. As a result, global companies have started to outsource various stages of drug development. With this, the global market for CDMO is expected to grow. MNCs like BASF, Bayer, and Syngenta are already outsourcing over 70% of their production to either Europe, China, or India. The increasing costs in Europe and the effect of COVID-19 have accelerated this trend with India now looked upon as a favourable destination for CDMO services. The 'China Plus One' strategy adopted by global companies makes this a lucrative opportunity for Indian companies like Hikal and it is well-positioned to grow because of it.

Hikal's Performance in Crop Protection Division

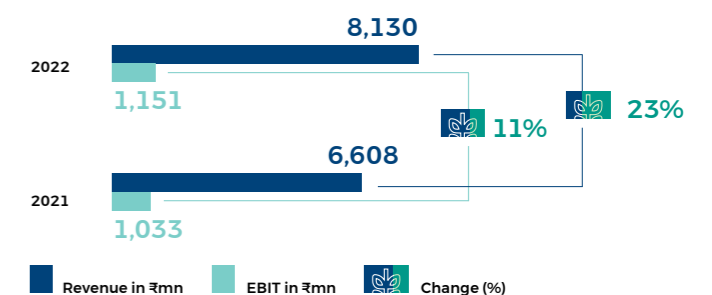
Our Company registered an impressive volume growth this year. We were able to grow our revenue from operations by 23% to ₹8,130 million, compared to ₹6,608 million last year. This is predominantly due to an increase in sales volume from our existing and new products. The revenue growth was mainly achieved on the back of higher demand from our leading CDMO customers, and new contracts with key US and Japanese customers. The end of the year, however, saw weak revenue growth caused by the external environment. The recent lockdown in China and the Ukraine-Russia war led to an escalation of input costs and shortage of raw materials. Our Company's strong fundamentals ensure that the impacts are momentary, and we should see impressive growth in the next financial year.

In line with our revenue growth, our EBIT grew by 11% to ₹1,151 million, from ₹1,033 million. Our profit growth could not match our volume growth because of the input cost escalation towards the end of the year. We expect this to be transient since we have products in the development pipeline at any given time and we expect our in-development product to boost our profits soon. This is because product commercialisation is quicker in the crop protection division than the pharmaceutical division.

As part of our CAPEX programme, we plan to commission our new fungicide plant by the end of H2 of the current financial year. In addition, we have plans to launch an additional fungicide, which is estimated to give a combined potential of ₹4-5 billion at its peak potential.

Our experience in the crop protection industry ensures that all our customers' commitments are met, and trust is maintained with global innovator companies. Therefore, we expect our crop protection division to be extremely lucrative for all our stakeholders.

Consolidated performance of Crop Protection division



MANAGEMENT DISCUSSION AND ANALYSIS

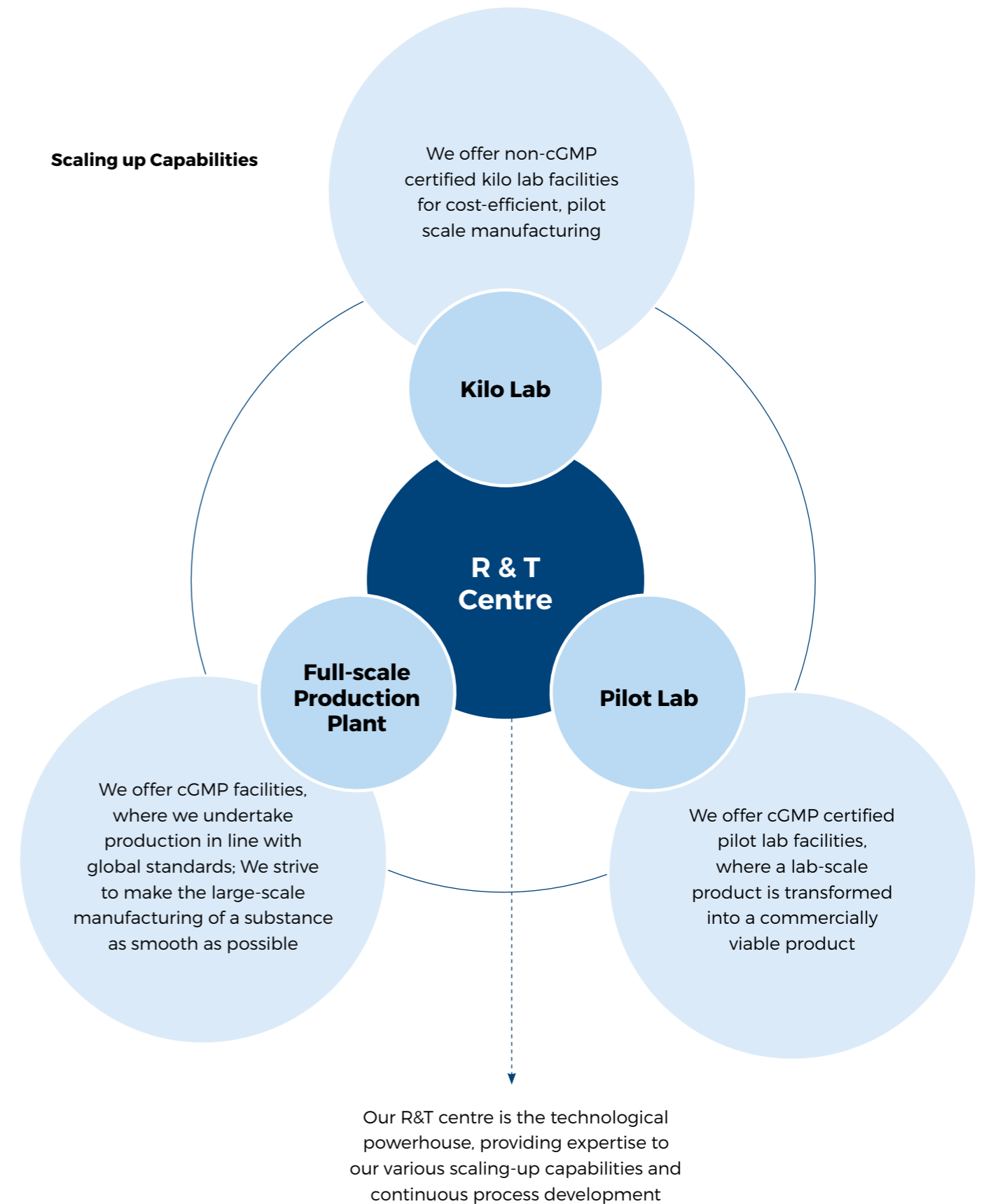
Research and Technology

Powered by Cutting Edge Systems

Our production plants offer synchronised small-scale and large-scale solutions across a wide range of complex chemistries. We provide continuous process improvement, which enables us to render handling of complex chemistries into a standard operational procedure, which is a testament to our technological and manufacturing prowess.



Scaling up Capabilities



MANAGEMENT DISCUSSION AND ANALYSIS

Research and Technology

Leading with Expertise

Hikal has been successful in consistently developing differentiated commercial capabilities to meet customer needs. Our cost-effective lab-to-pilot stage capabilities use sophisticated methods to demonstrate the large-scale feasibility of a new product.

Chemistries & Technical Capabilities

Differentiated Commercial Capabilities

Asymmetric Synthesis	Bromination	Macrolide Chemistry ¹	Enzymatic Reactions	Acid-Amine Coupling
Heterocyclic Chemistry	Chiral Resolution	Hydrogenation	Azidation	Cryogenic Reactions

Lab to Pilot Stage Capabilities

Flow Chemistry	Wittig Reaction	Suzuki Coupling
Carbohydrate Chemistry	Boronic Acid & Esters	

Other Key Commercial Capabilities

<ul style="list-style-type: none"> • Ammoxidation Continuous • Hoffman Rearrangement • N & C - Alkylation 	<ul style="list-style-type: none"> • Catalyst Preparation • Halex Reactions • Chlorination • Crystallization 	<ul style="list-style-type: none"> • High Vacuum Distillation • Cyanide Chemistry • High Temperature Reaction 	<ul style="list-style-type: none"> • Reduction • Friedel Crafts Reactions • Orange-phosphorous Chemistry 	<ul style="list-style-type: none"> • Oxidation • Esterification • Diazotization² • Grignard Reaction
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Collaboration with Global Experts for Enzyme Engineering and Biocatalysis

Note: 1. Synthetic Version 2. Sandmeyer Reaction

Some of our Key Differentiated Capabilities



Mini Plant

We have a non-GMP facility for kilo and pilot batches, where we test feasibility and demonstrate scalability. We also validate design and process considerations at a higher scale.

- 160 L reactor capacity; 250 L for workup
- Facility for cryogenic reactions up to -80°C
- Fractionation @ 2-3 Torr up to 200°C
- Scrubber for acidic and general vapours



Flow Chemistry

We have a state-of-the-art facility for flow chemistry, which can carry out bi-phasic reactions.

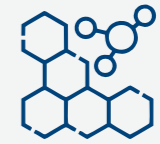
- CSTR with a capacity of 0.5-2 L
- VaporTech equipment
- Reduced effluent generation
- Capability to carry out bi-phasic reactions



Solid State Lab

Our solid-state lab strengthens processes related to a product's physical attributes for commercial use. It offers polymorph screening and optimisation, particle size engineering, crystallisation process development, and solid-state characterisation.

- Equipment available: pXRD, Mastersizer, DSC, TGA, and hot stage microscope



Bio-Catalysis

We have technical expertise in handling enzymes from lab development to manufacturing. We have a proven track record of demonstrating enzymatic process for commercial APIs.

- Examples of enzymes used in reaction – Nitrilase, Lipase, and Transaminase



MANAGEMENT DISCUSSION AND ANALYSIS

Research and Technology

Hikal has established itself as a technology driven and reliable supplier of active ingredients as well as advanced intermediates across the pharmaceutical and crop protection industries. We continue to invest in Research and Technology (R&T) to provide innovative solutions to our clients and drive our growth. We invest 3-4% of our total annual sales in R&T to develop more environmentally friendly, efficient, and cost-competitive processes.

We are investing in captive production for greater cost efficiencies. We are also expanding capacities and investing in new laboratories, lab equipment to deliver new cutting-edge products.

Filings

Our R&T team has filed two US DMFs, completed one CEP filings, six CEP amendments and six US DMF amendments for the pharma segment.

In crop protection, we concluded global registrations for six products. We plan to launch two new fungicide products in the current year at our new facility in Panoli, Gujarat.

Backward Integration

We continually focus on backward integration of key raw materials (KRM) as well as improvement in processes. Backward integration of the KRMs reduces the risk of supplier concentration as well as geographical dependence, contributing to better margins and supply sustainability. Having multiple sources of supply for critical raw materials helps ensure uninterrupted supply and business continuity for our customers.

In the past year, we have achieved backward integration of KRMs for several products. We have also developed alternate vendors for key starting material (KSM) to ensure supply availability at competitive price in the market amid supply chain disruption. These proactive efforts will support in retaining global cost leadership in our products and strengthen our product life cycle management strategy.

Development of Metal Containing API

We developed and delivered a commercial project utilizing metal containing API, which has enhanced our R&T as well as manufacturing capabilities in this complex and niche chemistry. We have successfully supplied kilo scale batch from our Jigani Unit 2, Bangalore facility.

Designing Synthetic Routes for Custom Synthesis

Customer expectations are advancing with time, having transitioned from the practice of sharing complete technology package to only providing basic information. We provide our expertise to propose the most-feasible synthetic route, as well as to develop the relevant analytical methods.

Hikal has also successfully delivered novel processes for new chemical entity (NCE) molecules in timely manner, by designing the routes of synthesis, screening these in the lab and finalising on the best route from an economic as well as sustainability perspective. We continue to have a strong pipeline of projects across various phases from global innovator customers.

Scaling Up CDMO

We have expanded our Jigani Unit 2 facility as we have gained traction in the CDMO business from global innovator customers. This brings in higher flexibility for scaling up and delivering more projects for the CDMO vertical. This facility has been specifically designed with fungible manufacturing capacities and a wide range of capabilities to handle complex multi-step custom synthesis projects.

Solid State Lab

The process safety lab 'solid state lab' is an intellectual asset of Hikal. It helps in generating safety data that enable us to identify process hazards. Additionally, the lab helps in identifying polymorphs, solvates, cocrystals and others for a given molecule. It gives us insights on scalable crystallisation and adds value to complex molecules with challenging physical properties. We have recently installed Particle size analyser (Malvern 3000) to analyse the particle size.

The solid-state lab has been a strong support in US DMF filings as well as for CEP amendments. It has strengthened our processes related to products' physical attributes for commercial use and those under development across both our business verticals.

Wealth from Waste

We have lab dedicated towards working exclusively on waste treatability studies. We work on processes to minimize the effluent stream and find ways to monetise the waste streams from development to commercialisation.

We aim to convert the by-products generated through the manufacturing processes into raw materials or co-products, which could either be used for captive consumption or sold separately. These initiatives are driving cost efficiencies and leading to enhanced yields while contributing positively to our sustainability initiatives.

Process Improvement

During the process development, we focus on reduction of process time cycles and minimizing the consumption of solvent by recycling the recovered solvent. Our overall aim is to minimize waste generation, thereby minimizing the impact on the environment.

Milestones Achieved in this Area

- In one of the projects, organic solvent consumption is reduced by recycling the recovered solvent in the process
- In another project, by-products were converted in to desired intermediate by using simple process which in turn reduced the hazardous organic waste to great extent
- In one of our commercial products of Crop Protection business, aqueous mother liquor was recycled in the process to reduce freshwater requirement by 30% per batch

Outlook

As a part of our R&T strategy, we will continue to deliver products recommended by our customers and business development teams, and commercialise in-house products and processes.

We remain focused on converting our contract development projects into exclusive long-term manufacturing opportunities in both the Pharma and Crop Protection business divisions.

To support in our product competitiveness, we are improving processes and introducing better productivity measures to increase yields, decrease impurities and reduce overall costs. We are investing in new technologies and partnerships to support this endeavor.

Our focus on newer and greener technologies shall help reduce our carbon footprint, optimise resources and improve process utilisation levels.

Through programs like 'Wealth from Waste' and other internal initiatives, we aim to develop a potential profit centre going forward.



MANAGEMENT DISCUSSION AND ANALYSIS

Financial Overview

Consolidated abridged Profit & Loss statement

(Currency : Indian Rupees in million)

Particulars	2021-22	2020-21	Change (%)
Revenue from operations (Net)	19,427	17,204	12.9
EBITDA	3,454	3,278	5.4
PBT	2,185	2,064	5.9
PAT	1,605	1,331	20.6

Revenue from Operations

Revenue from operations increased by 12.9% y-o-y to ₹19,427 million, compared to ₹17,204 million in the previous year. This was on the back of impressive performance from our crop protection division that could meet the high demand of our global CDMO customers and add contracts with global innovator companies. Our pharmaceutical division also showed a healthy performance. Despite a weak Q4 2021-22 performance, we were able to finish the year strong. The challenging external environment caused by the recurrent lockdowns in China and the onset of the Ukraine-Russia war led to a tightening of input cost.

EBITDA

Our Company recorded an EBITDA of ₹3,454 million compared to ₹3,278 million for the previous year. EBITDA grew by 5.4 % compared to the previous year. EBITDA grew slower than revenue from operations because of an increase in input costs, exacerbated by global uncertainties due to the war and the re-emergence of COVID-19 cases in China. For the same reasons, margins for EBITDA fell by 127 basis points, from 19.1 % in 2020-21 to 17.8 % in 2021-22. We were able to minimise the impact of the external environment through HIBEX—our business excellence initiative designed to increase productivity and lower costs.

PAT

PAT increased by 20.6% y-o-y to ₹1,605 million compared to ₹1,331 million for the previous year. The margins for PAT increased by 60 basis points, from 7.7% in 2020-21 to 8.3% in 2021-22. The shift to a more favourable tax regime for 2021-22 dampened the impact of lower operating margins.

Consolidated Cash Flow Statement

(Currency : Indian Rupees in million)

Particulars	As on 31 March 2022	As on 31 March 2021
Opening Cash and Cash Equivalents	76	317
Cash flows from:		
(a) Operating Activities	2937	2290
(b) Investing Activities	-2844	-1562
(c) Financing Activities	-55	-969
Closing Cash and Cash Equivalents	114	76

Liquidity Position

Cash generated from operating activities was ₹2,937 million compared to ₹2,290 million for the previous year. This increase in cash is on account of higher revenue as well as efficient utilisation of working capital. Investing activities resulted in a cash outflow of ₹2,844 million, compared to the ₹1,562 million for the previous year. This was used to increase capacity under our Company's CAPEX programme to realise future business opportunities. Financing activities resulted in a lower outflow of ₹55 million compared to the ₹969 million in previous year. The closing balance of cash and cash equivalents stood at ₹114 million for 2021-22.

Working Capital Position

The working capital of our Company remained essentially flat at ₹5,176 million in 2021-22 from ₹5,226 million in the previous year.

12.0%

REDUCTION IN WORKING
CAPITAL

1.25

CURRENT RATIO

Debt and Equity Position

Total equity increased to ₹10,680 million from ₹9,334 million in the previous year. This reflects the increased profitability of our Company. The net debt-equity ratio decreased to 0.59 in 2021-22, compared to 0.61 in previous year, while the net debt to EBITDA ratio increased marginally to 1.81 in 2021-22, compared to 1.79 in the previous year. The interest cost was ₹312 million compared to ₹362 million for the previous year.

Profitability

Return on Equity (ROE) increased by 110 basis points to 16.2% in 2021-22, compared to 15.1% in the previous year. Return on Capital employed stood at 15.2% in 2021-22.

16.2%

RETURN ON EQUITY

15.2%

RETURN ON CAPITAL
EMPLOYEED

CAPEX

In 2019-20, we announced a CAPEX programme of ₹3000 million for each of the next two years. Around 90% (₹2700 million) was utilised and added to the existing capacity. Full utilisation of the amount allotted was delayed because of the rising raw material and input costs globally. We plan to complete the balance CAPEX this year and increase capitalisation by around ₹4000 million in 2022-23. The CAPEX is targeted towards the creation of multi-purpose product plants, which will be used across both divisions— Pharmaceutical and Crop Protection—and towards upgrading the infrastructure of existing production facilities. We expect full-capacity utilisation of these plants in 2-3 years.

Key Financial Ratios

Key Ratios	As on 31 March 2022	As on 31 March 2021	Variance (%)
Debtor Turnover	4.17	4.13	1
Inventory Turnover	109	116	7
Interest Coverage Ratio	11.07	9.06	0.22
Current Ratio	1.25	1.34	6
Net Debt Equity Ratio	0.59	0.61	3
Operating Profit margin %	17.78	19.06	1.28
Net Profit Margin (%)	8.26	7.74	7



MANAGEMENT DISCUSSION AND ANALYSIS

Business Strategy

About Our Value Creation Approach

Being Adaptive and Proactive

Our production plants offer synchronised small-scale and large-scale solutions across a wide range of complex chemistries. We provide continuous process improvement, which enables us to render handling of complex chemistries into a standard operational procedure, a testament to our technological and manufacturing prowess.

Our long-standing growth trajectory gives us the confidence to set up ambitious performance targets. We feel that our growth potential is still untapped, and Hikal has the capabilities and business opportunities to fulfill it. In line with these targets, 'Project Pinnacle' has been envisaged and is being implemented.

Whilst our transformation initiative is at an early stage, we have seen the fruits of it already. We had an impressive start this financial year, where we achieved and exceeded our performance targets, but it tapered off towards the end of the year. Despite a challenging business environment, our performance gives us confidence that Project Pinnacle will deliver sustainable growth and profitability in the coming years.

Driving Growth Across Businesses



Human Health

Our business environment is ripe with opportunity. The human health industry, especially in the CDMO segment, is expected to be on a high growth trajectory.

The growing need for outsourcing by global pharmaceutical companies and our competitive advantage make our human health vertical well poised to be a growth engine for our Company.



Animal Health

The animal health industry is full of untapped potential, with less competition, and is expected to grow in the future.

The business environment makes expansion into animal health lucrative for us and our animal health vertical is expected to grow multi-fold in the near future.



Crop Protection

The crop protection industry is set to make recovery and bounce back.

Our product pipeline, along with a positive business environment, is expected to make our crop protection vertical a strong driver of our growth in the near future.



MANAGEMENT DISCUSSION AND ANALYSIS

Business Strategy

Strategic Pillars

Capitalising on Strengths

We, at Hikal, have charted strategic pillars, which take advantage of our growth engines, to enable value creation and achieve our growth targets. These strategic pillars are based upon maintaining our competitive advantage in the market, and expanding them.



SP1: ESG



Our pillar of ESG relies upon increasing our natural capital, social and relationship capital in an efficient governance structure. This leads to alignment of our well-being with the collective good.

Read more on 66

SP2: Compliance



We, at Hikal, understand the importance of regulations and strive to ensure we do business safely and responsibly. Our compliance relies on our commitment to green chemistry and green engineering.

Competitive Advantage

Our production plants are compliant with international agencies like the USFDA, PMDA, EU and other global agencies.

How we use it:

- We use it to maintain business sustainability
- We use it to align our interests with collective well-being

Key Regulatory Approvals

Key Pharma Regulatory Approvals



Integrated Management Systems across all sites



MANAGEMENT DISCUSSION AND ANALYSIS

SP3: Customer Centricity



Our business strategy relies on creating a unique value proposition for our customers. We strive to provide cost-effective quality products, manufacture them with excellence using our technical capabilities, improve our downstream supply considerations, and ensure we satisfy the highest ethical standards.

**Competitive advantage**

Our customer orientation relies on our commitment to being a reliable partner for our customers

**How we use it**

- We use it to deepen our relationships and provide better products
- We use it to maintain long-term relationships with our clients

**Initiatives undertaken****Key account management (KAM) systems**

This year, we have further integrated KAM into our business to develop deeper strategic relationships. As part of our KAM, we have:

- Started to integrate customer feedback and insights into our business, to make the customer a key focus point
- Started to manage our customer's journey by defining account maps internally
- Integrated a mechanism for real-time issue resolution

SP4: Research and Technology



Our aim is to harness science and technology to create world-class, sustainable products and solutions for customers, and enhance productivity of our sites and profitability of our businesses.

We are investing in captive production for greater cost efficiencies. We are also expanding capacities and investing in new laboratories, lab equipment to deliver new cutting-edge products.

**Competitive advantage**

Our R&T capabilities rely on our Company's culture of innovation, research, and collaboration and our research facilities

**How we use it**

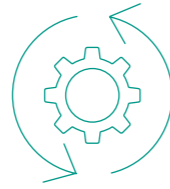
- We use it to diversify our product portfolio, by entering niche products
- We use it to imbibe a culture of innovation

**Initiatives undertaken****We enhanced our chemistries and technological capabilities by improving the manufactured capital around our intellectual capital**

- 2 new synthetic laboratories at our R&T Centre, Pune
- The improvement in the capacity of synthetic laboratories gives us additional capacity to work with synthetic chemical compounds for our products as well as for our CDMO business
- Constructed a new Mini Plant at our R&T centre in Pune
- An additional Mini Plant gives us the ability to test the commercial scalability of a product faster and thus, take advantage of opportunities

MANAGEMENT DISCUSSION AND ANALYSIS

SP5: Manufacturing Excellence



Our pillar of manufacturing excellence relies on capacity, capability, and compliance. We remain committed to an expansion of capacity through self-funding. This year, we undertook several initiatives to ensure our existing and future capacities are used as efficiently as possible.

Competitive advantage

Our competitive advantage of manufacturing excellence relies on our large capacity and enhanced capabilities

How we use it

- We use it to provide competitive and high-quality products
- We use it to keep our costs low and throughput high

A key initiative for enhancing our capabilities is the Hikal business excellence initiative or HIBEX, which focuses on:

- Increasing throughput
- Improvement in people's efficiency
- Improvement in solvent recovery

HIBEX is an operational excellence initiative for all of our business units, which takes into account all the business functions and goals for each department.

2000+ Tonne/Year

SCALE PRODUCTION OF KEY MOLECULES

Initiatives undertaken
Capacity**Addition of:**

- A new API production block at Jigani Unit 1
- 2 APIs have been validated
- A new production block at Jigani Unit 2
- Used for production of APIs, CDMOs and intermediates

\$90 million

CAPEX FOR ASSETS

4,100 M³

CAPACITY

Capability**HIBEX:**

- Lean Six Sigma Principles
 - 120 people trained and additional 200 people to be six sigma trained by next year
- Implementation of self-managed teams (SMTs) at Unit 1, Jigani site
- 20% production increment for one pharmaceutical product facilitated by automation and efficient material handling
- Achieved 20% cost improvement across 3 generic APIs

Capability**Planned Approvals**

- Unit 2, Bangalore and Panoli, Gujarat for extension into API manufacturing
- Additional multipurpose plant at Panoli, Gujarat

SP6: Supply Chain Management



As evident from the disruptions that stemmed from the recent past, supply chain risk is substantial and a threat to profitability. Our strategic pillar of supply chain management relies on backward integrating, finding alternative sources and partnerships, localisation, and digitisation. During the year, we undertook some efforts to de-risk our business from supply chain shocks.

Competitive advantage

Our supply management strategy relies on our risk management framework

How we use it

- We use it to de-link and de-risk our production process and keep our supply reliable
- We use it to remain competitive during times of global business shocks

Initiatives undertaken
Backward Integration

- We have initiated backward integration for KSMs, and started multi-sourcing from diverse geographies to mitigate disruption

Localisation

- We have started to develop connections with local vendors to initiate and expand supply chains within India

Alternate Sources and Partnerships

- We have started partnerships with suppliers in India, Europe, Japan, and Korea for supply chain security
- New partners developed for domestic strategic sourcing

Digitised and Integrated Supply Chain

- We have started identification of weak links in our supply chain for improvement
- We have started building up inventory and building real-time network visibility

CASE STUDY

Reducing our Dependence on a Single Geography

An substantial portion of our supply chain risk arises because of concentration of our supply chain towards a single geography. Considering the global pharmaceutical industry, China supplies a substantial portion of KSMs, APIs and Intermediates to the rest of the world. As part of our supply chain initiatives, we have been able to reduce dependence on China for one of our key product by developing local vendors. This is how we aim to benchmark management of supply chain risk for rest of our products.

Share of Procurement from China for a Product (%)


MANAGEMENT DISCUSSION AND ANALYSIS

Introducing Our Capitals

Built on Robust Pillars

Our capitals are what enable us to achieve our aspirations. In line with our commitment to ushering in an era of sustainable growth, we aim to foster a long-term perspective on our business strategy, both internally and externally.

**Financial Capital**

It refers to the pools of funds that are available to our Company to use in the manufacturing of products. This is usually needed to finance our capital expenditure on capacity building and involves financing options, such as debt, equity, retained earnings, etc.

Human Capital

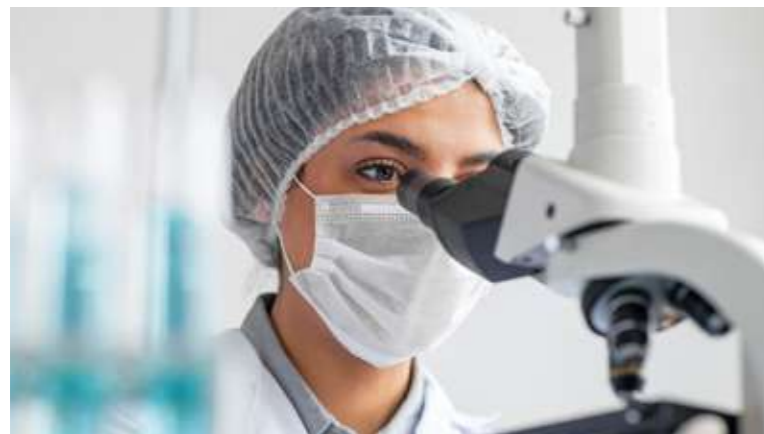
It refers to the skills, capabilities, and experience our employees have. It also refers to the incentive structure our employees exist in.

**Manufactured Capital**

It refers to the ability to increase throughput and also to the constraints that bind it. Being in a capital-intensive industry, it refers to our existing capacity for manufacturing the products we offer.

**Social and Relationship Capital**

It refers to the social environment our Company operates in, including the institutions and the relationships within and between our stakeholders, and the ability to align us and collective well-being.

**Intellectual Capital**

It refers to our knowledge base, needed to handle complex chemistries and molecules for our global clients. It also refers to the capacity to innovate and foster technology-led growth in our Company.

Nature Capital

It refers to the stock of nature including all renewable and non-renewable resources and processes that our Company uses, saves, and/or creates in its production process.



MANAGEMENT DISCUSSION AND ANALYSIS

Value Creation Model

Expanding Capacity, Augmenting Growth

At Hikal, we are transforming ourselves to achieve our bold vision. At its core, our business strategy is based upon harnessing Hikal's existing capital as efficiently as possible, and fostering a capital accumulation culture.

Inputs

Financial Capital

0.59 **₹10,680 million**
NET DEBT-EQUITY RATIO NET WORTH

Manufactured Capital

5 **4,100 M³**
PRODUCTION PLANTS CAPACITY

Intellectual Capital

336
PERSONNEL IN R&T AND TECHNICAL SERVICES

Human Capital

2,850
EMPLOYEES

Social and Relationship Capital

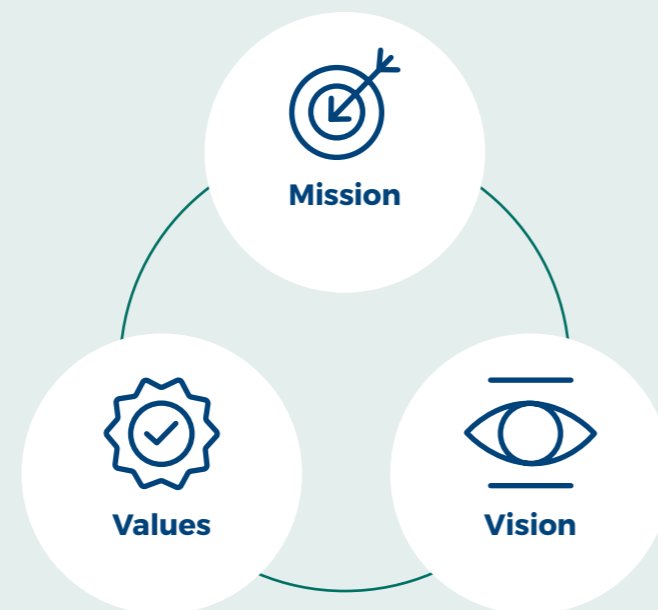
₹31.6 million
CSR EXPENDITURE

Natural Capital

7,03,40,409 KWH
ENERGY CONSUMPTION

10,99,478 KL
WATER CONSUMPTION:

Our Value Creation Process



Our Growth Drivers

Pharmaceuticals	Animal Health	Food Ingredients
Crop Protection	Biocides	Specialty Chemicals
	Research & Technology	

Creating Value for Stakeholders



Outputs

Financial Capital

₹19,427 million **₹3,454 million**
REVENUE EBITDA
15.2% **180%** **2.5x**
ROCE MARKET CAP SHARE PRICE INCREASE
IN 2021-22
(Increase in March 2021 to March 2022)

Manufactured Capital

~6,500 MT **~1,200 MT**
MT ACTIVE INGREDIENTS SOLD IN 2021-22 MT ADVANCED INTERMEDIATES SOLD IN 2021-22

Intellectual Capital

1 **1**
MINI PLANT (SCALE UP & PILOT) RESEARCH & TECHNOLOGY CENTRE

Human Capital

0 **6%**
LOST TIME INJURY (Per Million Hours) WOMEN IN WORKFORCE

10,166
TOTAL TRAINING HOURS RECEIVED

Social and Relationship Capital

200,000+
CSR BENEFICIARIES

Natural Capital

8% (84,734 KL) **29% (2,05,52,814 KWH)**
WATER RECYCLED RENEWABLE ENERGY USED

MANAGEMENT DISCUSSION AND ANALYSIS**ESG - Our approach towards sustainability****Being Responsible for Tomorrow**

We believe that sustainability is key to our long-term success, and to create value for our stakeholders. Embedding ESG into our operations enables us to create a positive impact on the environment, our people, and the communities we operate in.

**Environment****Energy Efficiency**

Responsible use of natural resources and usage of renewable energy

**Emission Management**

Reducing our emissions and contributing to combatting climate change

**Water Management**

Water conservation, restoration of water bodies

**Waste Optimisation**

Safe disposal, recycling, waste recovery and reduction of waste generation at the source

**Biodiversity**

Preservation of biodiversity to ensure natural capital is enhanced

**Social****Employee Safety**

Safety of work environment for employees across value chains

**Employee Engagement & Diversity**

Practices, policies, and culture supporting diversity, equity, and inclusion

**Fair Sourcing**

Fair practices for suppliers throughout the supply chain

**Community Relations**

Equitable interactions with communities

**Governance****Transparency and Risk Management**

Responsible disclosure and management of risks

**Quality Governance**

Practices related to good governance and ethics

**Corporate Governance**




Governance framework and regulatory compliance






MANAGEMENT DISCUSSION AND ANALYSIS

Stakeholder Engagement

Pursuing Meaningful Dialogue

At Hikal, our stakeholders are central to all our operations. We continuously engage with our stakeholders to identify, address, and re-evaluate focus areas that have the potential for long-term value creation.

Stakeholders	How We Engage Them	Key Outcomes
 <p>Customers</p>	<ul style="list-style-type: none"> Customer meetings Official communication channels: advertisements, publications, website, and social media Conferences and events Customer feedback and satisfaction survey 	<ul style="list-style-type: none"> Timely delivery Wide range of high-quality products that meet customer requirements Competitive pricing Easy availability through large distribution network Post-sales support
 <p>Employees</p>	<ul style="list-style-type: none"> Timely internal communications Capability development programs Performance appraisal Grievance redressal mechanisms Wellness programs 	<ul style="list-style-type: none"> Satisfaction and motivation Fair wages and rewards Improved work-life balance Regular training and skill development Career growth Safe and secure work environment Healthy workplace
 <p>Investors and Shareholders</p>	<ul style="list-style-type: none"> Analyst meets Quarterly calls, financial reports, and presentations Annual general meetings Annual reports Official communication channels: advertisements, publications, website, and social media 	<ul style="list-style-type: none"> Sustainable growth and returns High standards of corporate governance and risk management

Stakeholders	How We Engage Them	Key Outcomes
 <p>Community</p>	<ul style="list-style-type: none"> CSR partnerships Community welfare programmes Meetings and briefings Training and workshops Impact assessment surveys Official communication channels: Advertisements, publications, websites and social media Complaints and grievance mechanism 	<ul style="list-style-type: none"> Infrastructure development Funding for community development Training and livelihood programmes Contribution to the local economy
 <p>Institutions and Industry Bodies</p>	<ul style="list-style-type: none"> Conferences Joint R&D initiatives Internship opportunities for students 	<ul style="list-style-type: none"> Exchange of knowledge Collaboration in R&D Industry exposure for students
 <p>Suppliers</p>	<ul style="list-style-type: none"> Supplier development initiatives Vendor assessment and review Training workshops and seminars Supplier audits Official communication channels: Advertisements, publications, website, and social media 	<ul style="list-style-type: none"> Timely payment Continuity of orders Capacity building Transparency
 <p>Government and Regulators</p>	<ul style="list-style-type: none"> Statutory compliances filings and meetings Official communication channels: Advertisements, publications, websites, and social media Phone calls, emails, and meetings Regulatory audits/inspections 	<ul style="list-style-type: none"> Aligning with the government to support economic development Continued contribution to the exchequer
 <p>Media and Analysts</p>	<ul style="list-style-type: none"> Press releases, media interviews, email advisories Website management Social media posts and updates 	<ul style="list-style-type: none"> Effective communication Accountability and transparency

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Environment

Environmental Stewardship

We understand our business operations have a significant ecological footprint. In line with this, we strive to create a positive environmental impact.



Energy

Energy is at the heart of the challenges to climate change and our business operations. The 21st century has seen governments and companies around the world take cognisance of the impact that they have on the environment through energy production. As energy prices of conventional sources of energy are expected to rise, there is an increasing need to be energy efficient and use renewable sources of energy.

We, at Hikal, are making our production plants energy-efficient and sustainable. Thus, as part of our initiatives, we have initiated measures to become energy efficient and increase our renewable energy usage.

We ensure that all new projects are thoroughly reviewed by our technology department to ensure that our plants are energy efficient. During the year, we ingrained the concept of energy efficiency at the design stage itself of our new crop protection facilities, which resulted in financial benefits of ₹44.6 million/annum, compared to a conventional design of the plant.

Use of renewable energy

Our manufacturing facilities are a major source of energy consumption and one of the primary ways our business has an impact on the environment. As part of our initiatives, we have started to integrate sustainable thinking into our operations and focus on energy consumption and efficiency. We have started to shift away from our reliance on using fossil fuels to introduce more carbon-neutral sources of energy into our operations.

At our Bengaluru plant, 75% of energy is supplied by renewable energy in 2021-22. Because of our efforts, we have achieved and increased our usage of renewable energy to 29% across our operations. We aim to enhance the contribution of renewable energy and have set a target of achieving 90%+ renewable usage across all sites in the future. This will enable us to reduce our carbon footprint and help us create a positive environmental impact.

₹23.2 million
INVESTMENT TO MAKE
CROP PROTECTION
BUSINESS ENERGY
EFFICIENT

₹21.3 million
INVESTMENT TO MAKE
PHARMACEUTICAL
BUSINESS ENERGY
EFFICIENT

₹0.4 million
INVESTMENT TO MAKE R&T
CENTRE ENERGY EFFICIENT

₹44.9 million
INVESTMENT TO MAKE
BUSINESS OPERATIONS
ENERGY EFFICIENT

75%

OF THE TOTAL ELECTRICITY REQUIREMENT OF OUR
BIGGEST SITE IS DERIVED FROM RENEWABLE RESOURCES

₹31.7 million
YEARLY SAVINGS
IN CROP PROTECTION
BUSINESS

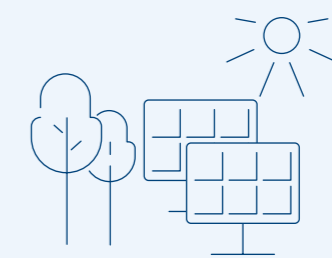
₹17.8 million
YEARLY SAVINGS IN
PHARMACEUTICAL
BUSINESS

₹0.48 million
YEARLY SAVINGS AT R&T
CENTRE

**2,05,52,814
KWH**
RENEWABLE ENERGY USED

Preparing for a cleaner future

Hikal continued its journey to use clean fuel and energy in its operations at Mahad, Talaja, and Panoli plants through long-term agreements for supply of renewable power. To date, Hikal has contracted for 13.8 MW of renewable energy via hybrid or solar power across all its plants.



MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Environment



Emissions

We have installed appropriate systems to control the generation of emissions from boilers, diesel generators, and scrubbers at our operations. These include bag house for boiler stack and use of express feeder at all factories in the industrial area for uninterrupted power supply, thereby minimising the use of diesel generators. For scrubbers, suitable neutralising media is kept in circulation continuously through the scrubber, which is checked at frequent intervals and necessary adjustments are done to maintain concentration of neutralising media.

We have continuous air monitoring systems at Pharma units located in Bengaluru. Online Monitoring of Industrial Emission & Effluent (OCEMS) at Effluent Treatment Plant outlet measures pH, COD, BOD, TSS, Inlet Flow, and outlet flow while OCEMS installed at boiler stack emission measures PM and SO_x and NO_x.

At Crop Protection units, we conduct ambient air quality monitoring on monthly basis through MOEF approved agency to measure parameters such as PM, SO₂, NO₂, NH₃, Carbon monoxide etc. Ambient air monitoring is carried out on 24 hours basis at multiple locations inside factory premises.

KPIs for 2021-22

Emissions data	Jigani Unit 1	Jigani Unit 2	Panoli	Mahad	Pune	Taloja
Sulphur Oxides/ SO _x (tons)	42.3	0.1	5.0	1.9	-	1.1
Nitrogen Oxides/ NO _x (tons)	23.4	0.1	7.4	1.7	-	3.3
Direct & Indirect Carbon Dioxide (CO ₂) (tonnes)	14,800	1,010	15,900	15,900	810	9,037
Other Greenhouse Gases (million tonnes of CO ₂ equivalent)	Nil	Nil	Nil	Nil	Nil	Nil



Water

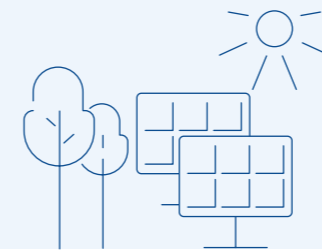
Water is an important raw material that is used across our manufacturing plants for heat transfer, cooling, steam generation, washing, and as a product ingredient. Water scarcity is an important aspect that we intend to focus on, and we aim to ensure the sustainability of water sources that exist around where we operate.

We source surface water either from river or lake by Government Industrial Development Authority. As part of our initiatives this year, we have reduced our freshwater consumption because of recycling through zero liquid discharge (ZLD) and improving steam recovery.

84,734 KL
WATER RECYCLED

Water recycling initiatives

- Multi-Effect Evaporators and Reverse Osmosis units are installed at pharma sites to achieve zero liquid discharge
- At Crop Protection sites, process water is recycled for washing at an intermediate stage



Water conservation initiatives

- Process optimisation to reduce water consumption per batch
- Rainwater harvesting
- Minimising quantity of boiler and cooling tower blowdown by using proper water treatment regime at Mahad and Taloja
- Imparting awareness training on water conservation
- Reverse osmosis system at ETP outlet water



Water conserving jet pumps

During 2021-22, we took the initiative of deploying a fine water jet pump to clean filter press and contaminated containers and surfaces to conserve water. Treated effluent water is recycled after treatment in reverse osmosis in the utilities.

45%

FRESH WATER RECYCLED
AT JIGANI UNIT 1

46%

FRESH WATER RECYCLED
AT PUNE R&T CENTRE



Circular Economy and Waste

We strive towards achieving end-to-end waste optimisation by reducing the waste generated at our manufacturing facilities and establishing a state-of-the-art waste treatment facility.

During the year, we initiated an investment of ₹460 million to enhance effluent treatment capacities. Our investments are geared towards reducing waste and improving the efficiency of our production plants.

80%

OF THE TOTAL HAZARDOUS WASTE GENERATED
AT OUR PANOLI SITE IS RECYCLED FOR
CO-PROCESSING IN CEMENT INDUSTRY

Initiative

- Zero Liquid Discharge Facility
- Fine Bubble Diffuser System
- Enhanced Segregation of Effluents

Outcome

- Ensuring no discharge of industrial wastewater into the environment
- Improve oxygen efficiency
- Improved recycling capabilities and lower landfill impact

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Environment

Wealth From Waste Program

Our 'Wealth from Waste' program is focused on the reduction of waste discharge or alternative discharge to reduce our disposal cost and the environmental impact of our production plants. As part of this program, we have started to embed circular economy into our operations by converting our waste products into useful outputs.

During the year, we made continuous investments towards:

- Use of waste as fuel: Briquette made up of crop waste like ground nut, husk, saw dust, etc. is used as boiler fuel
- Recycling of packaging

**Biodiversity Conservation**

Biodiversity is an important focus area for us, and we strive toward the preservation of biodiversity. The ecosystems around our operating sites clean our water, purify our air, maintain our soil, regulate

the climate, recycle nutrients, and provide us with food. Our stakeholder engagement process helps us to identify and act on opportunities to preserve the ecosystems near the areas where we operate.

Afforestation Project at Navi Mumbai

Mumbai, being a large metropolitan city, has a large ecological footprint because of population pressures and the demands of urbanization. In line with this concern, we partnered with International Association for Human Values (IAHV) to develop an urban forest over 33 acres of land at Rabale, Navi Mumbai. The forest site has been designed using a scientific approach and around 14,000 plants of over 50 species have been planted and many of them have been geo-tagged.

Hikal has adopted 1 acre of land and 450 saplings planted by Hikal employees, which over the past two years have grown into lush green trees with a survival rate of over 90%. Further, four water bodies were created and drip irrigation was used

to make the forest self-sufficient. A bio-diversity park and a butterfly park have also been created.

The project has now become one of the largest urban afforestation projects in India and has enabled the rejuvenation of air, soil, and water in a sustainable manner.

**Contribution to WWF India towards Conservation of Keoladeo National Park Wetlands**

As a reflection of our commitment to preserving biodiversity, we supported WWF for the third consecutive year to protect endangered species and landscapes. Our collaboration with WWF is based on a mutual desire to pursue ecological restoration using a multi-stakeholder approach. The project involved the conservation of Keoldeo National Park, which is a wetland of international importance and is an UNESCO world heritage site.

Environment and Ecological Protection**Yallamanaddi Lake Development Project at Jigani, Karnataka**

We partnered with the International Association for Human Values (IAHV) for the development work of Yallammanadoddi lake near our Jigani plant in Bangalore. Three villages in the surrounding area are directly dependent on this lake for water. However, the accumulation of unwanted waste, weeds mud, etc made the lake unfit for use.

increasing the water capacity of the lake by four times. This has resulted in the availability of water throughout the year and increased the biodiversity around the lake area.

1,476

BENEFICIARIES IN CURRENT YEAR

30,000

BENEFICIARIES OVER THE PROPOSED LIFECYCLE OF 15 YEARS

**RCC Water Tank Construction at Mahad, Maharashtra**

The Sutarkond village near our Mahad plant was facing the challenge of unavailability of clean and potable water. We supported them by constructing a cemented water tank at 22ft height with a capacity of 20,000 ltrs to fulfil the daily drinking water requirements of the entire village.

698

POPULATION IN SUTARKOND, MAHAD ACCORDING TO 2011 CENSUS

**₹4.5 million**

EXPENDITURE ON ENVIRONMENT AND ECOLOGICAL RESTORATION ACROSS HIKAL SITES

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social

Driven to create an impact

We believe it is important to create a positive impact for our people and the communities in which we operate, and we are committed to creating shared value and empowering people connected to our business.



People

An important value enabler for us is our employees whose dedication and innovative capabilities drive our business. We focus on creating a culture that recognises and promotes talent and our company's values. As part of our transformation journey, we aim to instil a culture of excellence, customer centricity, and innovation. Strengthening the capabilities of our people and fostering values of ownership, empathy, and excellence form the core principles of our people management strategy.

Value Enablers for Success

Right People

We strive to have our people function as a unit with the values of teamwork, transparency, and integrity.

Right Capabilities

In a technologically driven world, we believe it is important to enable our people to develop the right skills, to take ownership, and lead initiatives.

Right Behaviour

We believe that character is the most important part of an individual. We strive to hire and retain people with the right mindset and behaviour.

Diversity and Inclusion

For us, diversity and inclusion are not hiring policies, but a more holistic way of creating a workplace that earns the trust and commitment of our employees. An inclusive and diverse workplace is an important enabler in generating new ideas and strengthening our culture of excellence. We strive to create equal opportunities for our people regardless of caste, creed, colour, religion, gender, or place of birth.



Hikal Women's Forum

A platform for all the women employees of Hikal to come together and take conscious efforts towards synergising the group's growth and development.

25%

OF WORKFORCE IN CORPORATE
AND MARKETING OFFICES IS FEMALE



Campus to Corporate

Under Tarang - our Campus to Corporate program, campus placements were organized virtually in the wake of the pandemic. Trainees were hired to work for the synthesis, analytical, and process engineering verticals at Pune R&T. A detailed functional orientation was planned for all the offered trainees to assimilate faster into the system. Further, we also hired process engineers, instrumentation engineers, and industrial engineers from colleges of repute for the Central Technology Team & Productivity Optimization Team.

Employee Engagement

We believe in engaging our employees throughout the year through various communication channels and employee engagement initiatives to ensure that our people are motivated to work towards our goals. This enables us and our people to function as a unit and foster a sense of unity in our organisation.

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social

How We Engage our Employees

Company-wide Events

Values Week



Safety Week

Our Initiatives



Company-wide Events

6th Values Week Celebrations

In its 6th year, the values week from July 5th to 9th, 2021 was celebrated by all Hikalites following the COVID-19 protocols. The launch of the engagement plan at each site was followed by a Long Service Award ceremony wherein 83 Hikalites were felicitated for completing 10-30 years of services. Several activities were organised throughout the week to engage the employees. As part of the culture integration initiative, Gender Sensitization at Workplace training was conducted for 600 employees.

9th Hi-Q - Quality Week Celebrations

The 9th Quality Week from 29 November to 3 December 2021 was based on the theme of 'Quality for Excellence'. The celebration included several engagements to instil quality awareness amongst the employees. Key events included a 'Just Do It' workshop to highlight the immediate improvement areas for enhancing productivity and excellence, a guest lecture on 'Human Factor Reduction', and a case study on 'Business Excellence at Hikal'. Over 1,000 Hikalites attended these events.

Safety Week

The 51st Safety Week Program from 4 -11 March 2022, under the theme 'Nurture the young generation to develop a safety culture' promoted safety awareness amongst all employees and reinforced our commitment toward the zero-accident goal.

The weeklong celebrations included several safety-themed activities across sites, with a high level of energy and participation from the employees.

Our Initiatives

Parichay - Employee Referral Program

Parichay, our employee referral program, was re-launched to leverage our employee's network to identify the right talent for recruitment, enabling our employees to take ownership and contribute to our success.

Neev - Employee Orientation & Integration Program

Under Neev, we facilitate smooth and seamless employee assimilation of recruits through quarterly interactions with Site Head and Site HR Head to build awareness about organizational values and cultural pillars. Further, these interactions allow briefing new employees about our business targets and future planned activities, and how they can contribute.

Uday - Employee Engagement Program

Uday helps us strengthen our cultural pillars and values in our organisation. It promotes effective communication within our organisation to create a nimble, agile, and future-ready organisation, thereby creating value for our stakeholders. Under Uday, we have established wide-ranging systems for employee communication, performance, learning & development, succession planning, and celebrations.

Highlights of Uday

Employee Communication



Townhall Meetings

Townhall meetings at sites serve as a common platform for communicating business plans, expectations, progress, issues, and concerns, and foster a culture of discussion and ideation for a more effective organisation. During the year, we organised several town hall meetings to discuss a wide range of topics from COVID-related safety and precautions to plant-wise production targets.



CEO Connect

Closed room discussion was organised quarterly between the CEO of Hikal and employees to understand their comfort of work and solicit views, suggestions, and comments to improve the work atmosphere and performance level.



Employee Hour

Employee Hour with the Site Head and Operations Head gives our employees the opportunity to freely and safely express their views, thoughts, and suggestions on any matter about the site. In 2021-22, we conducted Employee Hour in the presence of the Management Committee for better employee engagement.

Parigyaan



Parigyaan - Employee Recognition

Parigyaan, our rewards and recognition program, helps create a culture of recognising the accomplishments, efforts, and achievements of our on-roll employees.

Awards under Parigyaan

Spot Award	Employee of the Month Award	Long Service Award	Innovation Award	Department of the Month Award
Team of the Month Award	Lab of the Year Award	Safety Champion of the Month Award	Rising Star of the Month Award	

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social

Learning & Development

Behavioural Initiatives

- Mangalyam
- Executive Coaching
- Creating Winning Teams
- Know Yourself

Technical Initiatives

- Six Sigma Green Belt & Yellow Belt Certification
- Self-Managed Teams (SMT)
- Internal Technical Trainings
- cGMP Trainings

Behavioural Initiatives

Mangalyam

Inspired by Mangalyam, a 4,000-year-old philosophic and mythological concept, this workshop nudged participants to discover themselves through others without the need to compete or judge, build a meaningful connection with people around, and create a positive and inspiring home/work ecosystem. One of the key design principles of this workshop was learning through discussions, conversations, and role plays.

Executive Coaching

As part of developing leaders, Hikal continued to invest in its executive coaching program. A total of 11 functional leaders were inducted into the coaching journey throughout the year.

Creating Winning Teams

In December 2021, Pune R&T organised a workshop on Creating Winning Teams. The one-day workshop included variety of team-building activities and exercises, aiming to develop new synergies and renewed attitude and outlook towards work for better professional and personal effectiveness. The workshop led to a better understanding of how to improve team communication and collaboration and resolve conflicts.

Know Yourself

The Women's Forum at Panoli organised a half-day motivational session in December 2021 on 'Know Yourself', which motivated participants to develop positive habits and a stress-free attitude to achieve their goals.

Technical Initiatives

Six Sigma Green Belt & Yellow Belt Certification Program

Designed to build our capability in Business Excellence, the Six Sigma Certification Program helps participants learn the tools, principles, and methodologies of Six Sigma to drive the successful implementation of projects.

The Green Belt training was a 16-week programme with Define, Measure, Analyse, Improve, and Control (DMAIC) approach. The projects undertaken ranged from a reduction of wastages to threat analysis. In the financial year, the HIBEX team has trained around 25 participants from all BUs.

Yellow Belt training was an 8-hour programme with Lean six sigma methodology. Participants learned the application of tools and were trained to run small improvements in their day-to-day work processes. In the financial year, the HIBEX team has trained around 130 participants from all BUs.

Self-Managed Teams (SMT)

The SMT Orientation Programs were conducted for the top and middle management teams and were followed by sessions for sites. The HR team was further trained and equipped with FAQs to manage queries from the employees.

A pilot project under green field concept of SMT was conducted at the newly constructed API-9 block at Jigani Unit 1. To synchronise SMT process with various production processes at the API-9 block, a 2-day awareness session was organised followed by SMT process mapping session with senior production officials. As per the plan, SMT awareness session was also organised at Jigani Unit 2 in September 2021.

Internal Technical Trainings

Based on the development needs identified through skill gap analysis and managerial inputs, various technical trainings were conducted across sites by expert internal trainers and external facilitators.



Some of the internal technical trainings:

Genotoxic and mutagenic impurities-related aspects

Operation of emergency fire alarm system

Training on effluent treatment and treatability study

Behaviour based safety

Training patent filing and IP knowledge

Work permit system, firefighting & PPE's

Technology transfer and scale up

Practical use of different types of fire extinguishers

Cleaning validation: A practical approach by EBM

Chemical reaction hazard and powder safety

Management of contract manufacturing

Emergency plan and SCBA handling

cGMP Training

We conducted multiple cGMP trainings across all sites on topics ranging from data integrity policies and practices, regulatory requirements (DMF filing & CTD format), to material management system, etc.

Hikal Compass

Through our intranet platform 'Hikal Compass', we engage and keep our employees informed in a centralised manner to foster a sense of teamwork and commitment in our people.

Health and Safety

Health and Safety of our employees is one of our top priorities. Our facilities have ISO 45001/ISO 14001/ Responsible Care certification to ensure best standards of health and safety in our operations. Further, we have a two-pronged approach of using a digital platform and conducting several health and safety initiatives.

22,956

MANHOURS OF EHS RELATED TRAINING ACROSS HIKAL SITES



MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social

How We Ensure the Health and Safety of Our Employees

Our Platforms

MySetu EHS Portal	Surakshapath	Monthly EHS Program	One Minute Safety Program	Safety Training	Ojas
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Initiatives

MySetu EHS Portal

MySetu is an EHS enterprise integrated solution to streamline processes, promote safe behaviour, and improve reporting. Through an efficient web-based near miss and reporting system wherein employees can report an unsafe act or condition at our production sites, it promotes a proactive approach toward EHS and supports better decision-making, continuous improvement, and optimal efficiency.

Our Initiatives



SURAKSHAPATH

Surakshapath

Surakshapath is a behavioural safety program to promote a safety culture by identifying at-risk-behaviour, ensuring immediate correction, and avoiding incidents. Surakshapath is designed to develop self-correcting behaviour, with one in ten employees trained as a 'Surakshakarmi' to prevent unsafe behaviour among other employees.

Monthly EHS Program

Our Monthly EHS program focuses on various important aspects of EHS through monthly EHS theme to enhance the knowledge and competence of our employees. This leads to a culture of health and safety and facilitates efficiency through inspections, upgradations, and audits.

One Minute Safety Program

We successfully initiated weekly safety talks at all our sites, wherein our employees share their safety-related experiences and concerns.

Safety Training

We believe in the continuous improvement in capabilities of our employees for a safe workplace. As part of our commitment, we initiated several training programs related to EHS at all our sites. During the year, we conducted the following safety training programs:

- **Production-related safety training:** External training was conducted on wide-ranging topics from protection against chemical burns to first-aid training to impart necessary knowledge to minimize harm from an accident
- **Onsite Emergency Mock Drill:** We conducted an emergency mock drill on electrocution and arc flash fire for all workmen involved in API-9 Block
- **Demo Training:** We conducted Demo training on rescue operations, firefighting, and hydrant building
- **Training on Fire Extinguishers Operations:** We conducted training programs on the proper usage of a fire-extinguisher
- **Mock Drill on Emergency Evacuation:** We conducted mock drills routinely in emergency evacuation scenarios for developing emergency preparedness
- **Other Safety Training:** We conducted site-specific safety training initiatives to address and fill gaps in our safety systems and employee knowledge



Ojas - Employee Wellness Program

We conduct various health initiatives under Ojas - our employee wellness program. Following initiatives were implemented during the year:

- **General Measures for Employee Safety:** In response to the second wave of the pandemic, we accelerated our health and safety measures and implemented strict COVID-19 protocols
- **COVID-19 Awareness Programs:** We initiated various awareness programs for all our employees through registered medical practitioners to educate them on safety measures and advocate the importance of hygiene
- **Medical and Testing Facilities:** We organised health camps at all sites and offices to test our employees for COVID-19
- **Preventive Health Policy Measures:** We extended COVID-19 protection insurance to all our employees and also facilitated group team life insurance policies for all permanent employees
- **Vaccination Drive Across all Sites:** We made it mandatory for all employees to be vaccinated and partnered with hospitals and health authorities to set up vaccination camps for family members. We achieved 100% employee vaccination
- **Annual Health Check-up:** We have initiated annual health check-up camps at our production plants



Supply Chain

Our efforts are directed towards creating a responsible supply chain by integrating environmentally and financially viable practices into the complete supply chain life cycle.

We evaluated our suppliers across the environment, social, and governance parameters and have developed score cards to rate suppliers for environmental and statutory compliances. We conduct supplier audits and take corrective actions as needed.

During the COVID-19 pandemic, we continued to support our suppliers by continuing with our contracts, providing adequate financial support, and maintaining regular communication of plant production forecasts.



Community

We are committed to creating shared value for communities in the vicinity of our operating areas. Our CSR program, 'Srijan', is an integral part of the Company's sustainable growth and development. We partner with non-governmental organizations (NGOs) in areas like secondary education, skill development, employability and infrastructure development, healthcare, sanitation, environmental sustainability, and protection of national heritage, art, and culture.



MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social

Srijan Initiatives



Anahat
Environment and ecology protection



Medha
Education and skill development



Kaushalya
Healthcare and sanitation



Sampark
Employee contribution



Rachna
Protection of national heritage, art, and culture

Education and Skill Development (Medha)

We believe education and skill development create a huge impact by tapping the potential of people. Under our education and skill development initiatives, we focus on primary and secondary education, vocational training, and school infrastructure.

₹15.5 million

CSR EXPENDITURE ON EDUCATION AND SKILL DEVELOPMENT INITIATIVES

Initiative	Prarambh	Unnati	Buniyaad
	Initiation	Progress	Foundation

Initiation (Prarambh)

Prarambh is driven by the philosophy of facilitating primary and secondary education underprivileged children. As part of Prarambh, we undertook the following initiatives during the year:

- **Faculty Development Program at a Govt. School at Jigani** for the ninth consecutive year by sponsoring the teacher's salary
- **Educational Sponsorship:** We enabled and facilitated students from underprivileged backgrounds by sponsoring their education. During the year, Panoli team facilitated secondary education of two children by sponsoring their education expenditure and our Jigani Unit 2 sponsored the education of five children from Adarne Charitable Trust for a period of three years
- **Distribution of Notebooks at Jigani** at multiple government schools during the pandemic
- **Supported Happiness Kits and Mid-day Meals** to 3,068 government school children near our Jigani plant by collaborating with the Akshaya Patra Foundation for the second consecutive year

Progress (Unnati)

Unnati is driven by the philosophy of promoting employability through vocational training and education. As part of Unnati, we undertook the following initiatives this year:

- **Supported Specially-abled Children at Taloja** by supporting Aai Day Care Sanstha for the fifth consecutive year by providing them vocational training and schooling services



We also supported the infrastructure requirements of a new hostel cum training facility being constructed for residing children

- **Sponsored a Pentathlon Athlete** by sponsoring his training camp in Egypt to help him prepare and compete for 2024 Olympics

Foundation (Buniyaad)

Buniyaad is driven by the philosophy of providing schools with the necessary infrastructure to facilitate education. As part of Buniyaad, we undertook the following initiatives this year:

- **Infrastructure Work at Ghot Camp Zilla Parishad School near Taloja** to improve facilities for 150 students and 5 teachers
- **Infrastructure Work at Sutarkond Zilla Parishad School near Mahad plant** including exterior painting of school building, toilet construction, etc.



MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social



- **Infrastructure Development Work at Five Additional Zilla Parishad Schools near Mahad** by repairing the damage caused to five schools by a recent flood and plan to improve the infrastructure of six more schools in the area
- **Support to Vidya Bharati Gujarat Pradesh towards Netaji Subhash Chandra Bose Military Academy** by supporting the NGO to help in the development of a sainik school; The beneficiaries of our support are expected to be 630 students – 35% of which will be girls
- **Support to Jan Jagrati Sevarth Sansthan towards School Development** in the development of an English medium school based on international modules. The school will provide quality education to more than 1,000 students with 25% of students bearing no cost of education under RTE, 2009

Healthcare and Sanitation (Kaushalya)

We provide essential healthcare and sanitation services to complement Government programmes.

₹2.9 million

CSR EXPENDITURE ON HEALTHCARE AND SANITATION

Our Initiatives this Year:**Menstrual Health and Awareness Program**

Addressing information gaps about menstrual health can help protect women from adverse health impacts such as reproductive health infection (RTI) and increase girls' attendance in

schools. In line with this, we partnered with IAHV and organised a series of Menstrual Health and Hygiene Awareness Programs (MHHAP) across all our sites. We received encouraging participation for our program and provided Menstrual Health Hygiene kits at the completion of the program to drive meaningful behavioural change.

200

RURAL WOMEN PARTICIPATED IN MHHAP ACROSS SITES

**Partnership with Ummeed to Empower Children with Developmental Disabilities**

We partnered with Ummeed Child Development Center to help them provide specialised care to children with developmental disabilities. We supported Ummeed Parent Program for Autism (UPPA) for two years, which is a six- to eight-week parent training-cum-coaching program aimed at modifying the home environment to support the child's play and communication. It also creates opportunities for the child to initiate communication with appropriate language according to the child's level.

Supported NGO to provide Critical Medical Services

We partnered with Seva Yagna Samiti for the sixth consecutive year to provide ICU/ICCU facilities to underprivileged children. This project has helped us facilitate critical medical assistance for over 70,000 patients over the last five years.

Supported Old Age Home near Jigani Unit 2

We extended our support to Ashraya old age home near our Jigani Plant where we donated various supplies (gloves, ration, sanitary items, fruits, and vegetables).

**Other Initiatives**

- We continued to support an underprivileged villager for the maintenance of dialysis requirements for the third consecutive year
- As a reflection of our concern for the devastation caused by recent floods in Konkan, we donated 100 grocery kits to the victims to support them in their time of crisis
- We supported a village panchayat in the cleaning of their drainage canal such that the agricultural activities and livelihoods of the villages are not disrupted
- We contributed new-born baby kits, toys, and fruit baskets to ten underprivileged children at a hospital near Jigani
- We supported an NGO which houses 20 underprivileged children where our HR team organised a special lunch, ration items, fruits, and clothes including outdoor activities

Protection of national heritage, art, and culture (Rachana)

We believe that India's national heritage, art, and culture contributes to the uniqueness of India's identity. As part of our desire to create shared value, we have undertaken several initiatives for the protection of India's heritage, art, and culture for the present and future generations.

₹2 million

CSR EXPENDITURE ON THE PROTECTION OF NATIONAL HERITAGE, ART, AND CULTURE

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Social

Our Initiatives this Year:

Supported Chhatrapati Maharaj Vaastu Sangrahalaya

We extended our support to the 'Indian Metal and Decorative Arts Gallery' to help maintain the collections, their storage, as well as for the essential functions of conservation, climate control, and security of the artefacts.

Supported a Literature Festival

We sponsored a session on Martin Kemp's book 'Visions of Heaven: Dante and the Art of Divine Light' at the twelfth edition of Tata Literature Live! - The Mumbai Litfest.

Supported National Centre for the Performing Arts (NCPA)

We extended our support to the NCPA for the fifth consecutive year and enabled them to continue their activities during the pandemic.

Extended Support to Jnanapravaha Academic Institute

We extended our support to Jnanapravaha Academic Institute for the fifth consecutive year.

Jnanapravaha Academic Institute is one of India's leading independent academic institutes, and through our collaboration, they could successfully conduct online courses on Yoga and Tantra.



Supported Mehli Mehta Music Foundation (MMMF)

Hikal supported the Mehli Mehta Music Foundation in extending music education to the underprivileged children who have been facing difficulty during the pandemic.



Employee Contribution (Sampark)

Sampark extends our employee engagement programs outside our sites and enable our employees to actively contribute towards creating shared value for the underprivileged communities.

Our Initiatives this Year:

Distribution of notebooks to children near Pune

Our employees from Pune R&T team provided primary students with notebooks to help them receive a quality education.



Donation to an orphanage

Our Panoli Women's Forum team distributed chocolates and clothes to the children and shringar kit, clothes and chocolates to the women at the orphanage in 'Nari Sanrakshan Kendra'.

Supported development of police Infrastructure near Panoli

Our Panoli team volunteered to help in the construction of a new building for a police station near our Panoli site. The purpose behind this initiative is to ensure a conducive social environment and address law and order for 16 villages in the vicinity.



Organised blood donation camp at Panoli

Our Panoli site conducted a blood donation camp in association with Red Cross Blood bank, wherein 48 employees donated blood.

₹1 million

CSR EXPENDITURE ON RURAL DEVELOPMENT PROJECTS FACILITATED BY EMPLOYEE VOLUNTEERING



COVID-19 Initiatives

The second wave of the pandemic unleashed devastation in the country with lockdowns, curfews, and acute shortage of oxygen placing a huge burden on the population. We took the following initiatives to cushion the impact of COVID-19:

- Supported the CII foundation in providing 100,000 N95 masks to Mumbai traffic police
- Supported the Lokivas Samajik Sanstha and Mahad Municipal Corporation in setting up a COVID-19 health care centre at Mahad
- Provided medical equipment for COVID-19 treatment to a hospital near Taloja, and facilitated provisions for beds to our employees during the second wave
- Provided ventilator and BIPAP machine to a multi-speciality hospital in Bharuch to support COVID-19 patients
- Donated an oxygen plant to a government hospital in Porbandar, Gujarat

₹5.7 million

CSR EXPENDITURE ON COVID-19 RELIEF WORK

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Governance

Delivering Good Governance

We strive towards integrating sustainability into our operations and aim to create short-term and long-term value for our stakeholders. Aligning our value creation strategy with the expectations of stakeholders is the key principle of our governance.

Transparency and Accountability

Our Board of Directors ensures transparency, integrity, and accountability at all levels of the organisation. Our Management Committee focuses on implementing our value creation strategy whilst adhering to the creation of shared value for all our stakeholders.

Board Committees

 Audit Committee	 Stakeholder Relationship Committee	 Nomination & Remuneration Committee
 Corporate Social Responsibility Committee	 Risk Management Committee	 Share Transfer Committee

Key Board Functions

 Review the Business Strategy and Operational Plans	 Monitor and Review the Board Evaluation Framework	 Discharge Statutory or Contractual Responsibilities	 Oversee the Process for Compliance with Laws and Regulations
 Provide Oversight on Corporate Governance Practices	 Review the Risk Management Approach	 Oversee the Reliability of External Communications	 Monitor and Review Management Performance

Our Governing Policies

 Risk Management Policy	 Dividend Distribution Policy	 Whistle Blower Policy	 Archival Policy
 Policy for Determining Material Subsidiary	 Policy on the Preservation of Documents	 Policy for Determination of Materiality of any Events or Information	
 CSR Policy		 Related Party Transactions Policy	

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Governance

Board of Directors

**Jai Hiremath**

Executive Chairman

Mr. Hiremath is the Founder and Executive Chairman with over 41 years of experience in the fine chemicals and pharmaceuticals industry.

Mr. Hiremath developed Hikal into one of the leading global development and manufacturing companies. A Chartered Accountant from the Institute of Chartered Accountants in England and Wales, he is a 2002 alumnus of Harvard University, USA. His contribution to the industry has been recognised across global forums. In 2005, he was presented the Chemtech Business Leader of the Year Award (Chemicals). Mr. Hiremath was the former President of the Indian Chemical Council (ICC), as well as the Chairman of the Chemicals Committee of the Federation of Indian Chambers of Commerce and Industry (FICCI). He served as a board member of the Drug, Chemical, and Associated Technologies Association (DCAT) headquartered in New Jersey, USA. He is a board member of Novartis India Ltd and a member of CII's Pharma Committee.

**Sameer Hiremath**

Managing Director

Mr. Hiremath oversees the day-to-day operations of the Company, which include Research & Technology, Manufacturing Operations and Sales & Marketing. He has over 27 years of experience in technical plant operations, business development, and strategy. He has held several key positions at Hikal, including that of an Executive Director.

He holds a degree in Chemical Engineering and an MBA and MS degree in Information Technology from Boston University, USA. Sameer was conferred the 'Business Leader of the Year' award by the World Federation of Marketing Professionals and World Federation of Human Resources Professionals in 2019 and the 'CEO of the Year' award by The World Leadership Congress & Awards in 2021.

**Baba Kalyani**

Non-Executive Director

Mr. Kalyani is the Chairman & MD of Bharat Forge Limited, the flagship company of the \$3 billion Kalyani Group.

Mr. Kalyani is B.E. (Hons) in Mechanical Engineering from the prestigious Birla Institute of Technology & Science, Pilani, and subsequently, earned an M.S. from the Massachusetts Institute of Technology, Boston, USA, in 1972. Mr. Kalyani has been conferred with the highest civilian awards from many countries, which include Padma Bhushan by the Government of India; Order of the Rising Sun, Gold and Silver Star (Japan); Cross of the Order of Merit (Germany); Commander First Class of the Royal Order of the Polar Star (Sweden); and Knight in the Order of the Legion of Honour (France).

Mr. Kalyani is a nominated member representing the Indian Industry in the Prime Minister's Science Technology and Innovation Advisory Council (PM-STIAC). He also serves as the Co-Chairman of the India-Japan Business Leaders' Forum and the India-Sweden Business Leaders' Roundtable. He is an active member representing Indian Industry in other such forums, including in the USA, UK, Israel, and France.

Mr. Kalyani is the Founding Chairman of Pratham Pune Education Foundation and supports various other NGOs and charitable institutes engaged in skilled development, sustainability, women empowerment, sports, and healthcare.

**Kannan Unni**

Independent, Non-Executive Director

Mr. Unni is a pioneer in crop protection with over 55 years of experience in the crop protection and animal health industry. He worked in multiple capacities in Hoechst, AgrEvo, Aventis Crop Science and Bayer Crop Science Group. He was the Chairman and Managing Director of Bilag Industries, a 100% Bayer Crop Science-owned company. Mr. Unni has technical and commercial experience in the agricultural and animal health businesses, having worked in a variety of roles. He is the Chairman Emeritus of CropLife India.

Mr. Unni is a graduate in Agriculture and holds a degree in Business Administration from Jamnalal Bajaj Institute of Management, Bombay and a Diploma in Marketing from IMEDE, Switzerland.

**Prakash Mehta**

Independent, Non-Executive Director

Mr. Mehta has a degree in law from Mumbai University (1963) and qualified as a solicitor in 1966. He is the Managing Partner at Malvi Ranchoddas & Co., Advocates and Solicitors, a law firm in Mumbai. He brings extensive experience in corporate and commercial legal matters. Mr. Mehta is on the board of several listed and unlisted companies in India.

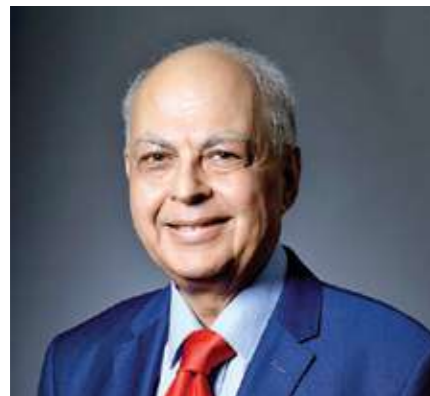
MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Governance

**Sugandha Hiremath**

Non-Executive Director

Ms. Hiremath has more than 40 years of experience in Finance. She is an active participant in the Audit Committee at Hikal. She also serves on the board of several companies.

**Ranjit Shahani**

Independent, Non-Executive Director

Mr. Shahani has extensive experience in the life sciences industry. He started his career with ICI in the Fibres & Specialty Chemicals business. He then oversaw their Asia Pacific and Latin American operations for their Petrochemicals and Plastics division. He was the CEO at Roche Products Limited, after which he moved to Novartis in India in 1997, following the merger of Sandoz and Ciba-Geigy as CEO Healthcare. He was the Vice-Chairman & Managing Director of Novartis India for 17 years.

Mr. Shahani brings with him diverse experience to drive strategic growth plans. Over his career span, he has delivered strong and successful business outcomes within complex environments. He is the President Emeritus of Swiss Indian Chamber of Commerce (SICC), the President Emeritus of Organisation of Pharmaceuticals Producers of India (OPPI), and former President of the Bombay Chamber of Commerce and Industry. He was also on the Council of the International Federation of Pharmaceuticals Manufacturers Associations (IFPMA, Geneva).

Mr. Shahani is a Mechanical Engineer from IIT-Kanpur and has an MBA from Jamnalal Bajaj Institute of Management Studies.

**Amit Kalyani**

Non-Executive Director

Mr. Kalyani is a member of the management board and Deputy Managing Director of Bharat Forge Limited (BFL), the flagship company of the \$3 billion Kalyani Group. He has been involved with driving the group's strategy and in the execution of its diversification over the past decade. He has been involved with driving the group's strategy and in the execution of its diversification over the past decade. He is also responsible for finance and M&A. His key focus is on nurturing talent and developing new skills within the organisation, driving growth in new areas and products in the EV space.

Mr. Kalyani has been a part of many committees of the Government of India on manufacturing, education, skill development, and bilateral relations. He serves as an Independent Director on the board of Schaeffler India Ltd, and he is also a member at USIBC and YPO.

He holds a BE degree in Mechanical Engineering from Bucknell University, Pennsylvania, USA, and is a graduate of the OPM Program at Harvard Business School.

**Shivani Sachdeva**

Independent, Non-Executive Director

Ms. Sachdeva is the Founder & CEO of India Alternatives, a reputable mid-market private equity fund focused on investing behind transformational themes in India. She has over 19 years of global private equity experience in the US and in India at top private equity funds, including GE Equity, Lightyear Capital and IDFC Private Equity.

Ms Sachdeva has been an active member on the boards of all her portfolio companies, where she has been instrumental in guiding management teams and shaping strategy. She has previously served on the boards of HealthCare Global and Gokaldas Intimatewear, and currently serves on the boards of Brinton Pharmaceuticals and Seclore Technology. She is also an Independent Director at Emaar India.

She has received several accolades and recognition for being one of the top women leaders in finance in India, including winning an award for the Top 25 Women Leaders in Finance category by Association of International Wealth Management of India as part of India's Top 100 Women in Finance campaign. She is a frequent speaker on private equity at domestic and international conferences, including Super Return Europe and Singapore and the Indian Venture Capital Association.

She received an MBA from the Wharton School, University of Pennsylvania, and a B.A. in Economics from Mount Holyoke College (Phi-Beta-Kappa, Magna Cum Laude, Sarah Williston Scholar).

**Shrikrishna Adivarekar**

Independent, Non-Executive Director

Mr. Adivarekar is a qualified Chartered Accountant (Fellow member of the ICAI) with over 19 years of experience. He has been working with M/s Kunte & Vaidya Chartered Accountants since 2000 in various capacities and is now the Managing Partner.

Mr. Adivarekar has experience dealing with various corporate and legal matters under Direct Tax Laws, Company Law, FEMA etc for various large corporate groups. Mr. Adivarekar serves as an Independent Director on several boards.

Mr. Adivarekar graduated in Commerce from Pune University in 2002 and qualified as a Chartered Accountant in 2003.

50 %

INDEPENDENT DIRECTORS

20 %

OF DIRECTORS ARE WOMEN

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Governance

Scientific Advisory Board

**Dr. Goverdhan Mehta**

Dr. Mehta is a globally recognised organic chemist. He is currently University Distinguished Professor and Dr. Kallam Anji Reddy Chair at the School of Chemistry, University of Hyderabad. He holds a Ph.D. in Organic Chemistry from Pune University and has conducted his post-doctoral research at the Michigan State and the Ohio State universities in the USA.

Dr. Mehta has been a CSIR Bhatnagar Fellow, National Research Professor as well as the Director of the Indian Institute of Science, Bangalore, and Vice Chancellor of the University of Hyderabad. He has mentored over a hundred doctoral and post-doctoral students and published nearly 550 research papers. He has over 50 prestigious awards and honours to his credit, nationally and internationally. He has been conferred D.Sc. by over a dozen universities in India and overseas.

He was awarded the civilian honour, Padma Shri, in 2000 by the President of India and Chevalier de la Légion d'Honneur in 2004 by the President of France. Dr. Mehta was conferred the 'Order of Merit-Commander's Cross' by the President of the Federal Republic of Germany in 2016. He is a Fellow of the Royal Society and several Academies and Societies around the world. He is a former President of the Indian National Science Academy and the International Council for Science (ICSU). Mr. Mehta has been a member of the Scientific Advisory Committee to the Prime Minister of India.

**Dr. Axel Kleemann**

Dr. Kleemann has in-depth knowledge and experience in research and development, production, engineering and drug safety. He was the Director of Corporate Organic Research of Degussa AG (now Evonik Industries) for over 10 years. He was appointed as a member on the management board of Asta Medica AG with the responsibility of research and development, production, engineering and drug safety till 2000.

Besides being a board member in various organisations and scientific societies in Germany, Dr. Kleemann was the Chairman of the Board of Directors of Protagen AG from 2001 to 2017. He was also a member of advisory boards of several biotech and fine chemical companies. He is the co-author of the standard reference book, Pharmaceutical Substances (5th edition and online version), as well as a member of the editorial board of Ullmann's Encyclopedia of Industrial Chemistry. He is an Honorary Professor of Chemistry at the Johann Wolfgang Goethe University in Frankfurt. He holds a Ph.D. degree in Chemistry from Johann Wolfgang Goethe University in Frankfurt am Main.

**Dr. K. Nagarajan**

Dr. Nagarajan has over 59 years of experience as a Research Chemist. He was the Head of Medicinal Chemistry at Ciba-Geigy Research Centre and Director, Searle R&D Centre, both in Mumbai. He is a recipient of the Bhatnagar Prize in Chemistry and LifeTime Research Award from the Chemical Research Society of India. He spearheads the scientific research initiatives at Hikal. He has been associated with several national research institutions such as the CSIR Central Drug Research Institute, scientific agencies such as the Department of Biotechnology and projects of the Ministry of Earth Sciences.

Dr. Nagarajan is B.Sc (Hons) in Chemistry from Loyola College, Madras, and Ph.D from the University of Madras. He is a post-doctoral fellow from Wayne State University, Detroit, California Institute of Technology, Pasadena, and Zurich University, Zurich.

Management Committee

**Jai Hiremath**

Executive Chairman

Mr. Hiremath is the Founder and Executive Chairman with over 41 years of experience in the fine chemicals and pharmaceuticals industry.

Mr. Hiremath developed Hikal into one of the leading global development and manufacturing companies. A Chartered Accountant from the Institute of Chartered Accountants in England and Wales, he is a 2002 alumnus of Harvard University, USA. His contribution to the industry has been recognised across global forums. In 2005, he was presented the Chemtech Business Leader of the Year Award (Chemicals). Mr. Hiremath was the former President of the Indian Chemical Council (ICC), as well as the Chairman of the Chemicals Committee of the Federation of Indian Chambers of Commerce and Industry (FICCI). He served as a board member of the Drug, Chemical, and Associated Technologies Association (DCAT) headquartered in New Jersey, USA. He is a board member of Novartis India Ltd and a member of CII's Pharma Committee.

**Sameer Hiremath**

Managing Director

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He holds a degree in Chemical Engineering and an MBA and MS degree in Information Technology from Boston University, USA. Sameer was conferred the 'Business Leader of the Year' award by the World Federation of Marketing Professionals and World Federation of Human Resources Professionals in 2019 and the 'CEO of the Year' award by The World Leadership Congress & Awards in 2021.

**Anish Swadi**

Senior President - Animal Health & Business Transformation

Mr. Swadi has 25 years of industry experience. He is leading the "Business Transformation" initiative at the company. He is also responsible for Corporate Strategy and Investor Relations. He served on the board of Rx-360, an international pharmaceutical supply chain consortium. Previously, he worked as an International Financial Portfolio Manager with Merrill Lynch in the US.

Mr. Swadi holds a bachelor's degree in International Business and Finance from Ithaca College, New York, USA and completed the Management Development Program from the Wharton School.

MANAGEMENT DISCUSSION AND ANALYSIS

ESG → Governance

**Manoj Mehrotra**

President - Pharmaceuticals

Mr. Mehrotra has over 35 years of experience in the fine chemicals and pharmaceuticals industry. He has a B.Tech (Hons) in chemical engineering from IIT-Kharagpur and an MBA from XLRI, Jamshedpur. In his last assignment at Dr. Reddy's Laboratories, he was the global head of the Custom Pharmaceutical Services (CPS) business. Earlier, Mr. Mehrotra worked in companies such as Thermax and SRF Limited. At SRF, his last role was strategising and growing the fluoro-specialty business. At Hikal, he is responsible for strategy, sales and operations of the pharmaceutical division.

**Kuldeep Jain**

Chief Financial Officer

Mr. Jain has over 31 years of experience in financial operations and strategic planning and brings a wealth of experience in accounting, financial planning, analysis, taxation and audits. He has been with Hikal for the past 24 years. Mr. Jain has played a key role in developing and implementing financial procedures to improve and maintain the financial health of the company while keenly overseeing the overall accounting/taxation processes. He is also responsible for investment analysis and analysing the Company's financial strengths and weaknesses. Kuldeep is a qualified Chartered Accountant and Member of the Institute of Chartered Accountants of India, New Delhi.

**Vimal Kulshrestha**

President - Crop Protection

Mr. Kulshrestha has over 35 years of experience in the fine chemical and agrochemical industry. He completed his B. Tech in Chemical Engineering from H.B. Technical Institute, Kanpur and Executive Management from IIM Kolkata. Mr. Kulshrestha has worked in companies such as Grasim Industries, Modipon Limited with a long stint in Jubilant Group Companies. He has experience in the B2B speciality chemicals and agrochemical industry, handling P&L and senior leadership roles. At Jubilant, Mr. Kulshrestha spent the first 8 years overseeing the technical and manufacturing aspects of the business and in his last assignment, he was the Sr. Vice President and SBU Head of the Ethanol division. He also led the Crop Protection business with the responsibility of strategy, sales, marketing, business development and operations. At Hikal, he is responsible for the P&L of the Crop Protection division.

**Ratish Jha**

President - Human Resources

Mr. Jha is a transformational leader with cross-industry experience of 27 years, having worked in different countries and multiple sectors like Pharma, Energy, Automotive, Metal & Mining, Packaging, Manufacturing and Services. Mr. Jha is an alumnus of TISS Mumbai and has attended different business certifications program at IMD Switzerland, University of Michigan, AOTS Japan, ISB, IIM-A. Under his leadership, the companies that he worked for were listed in several forums & won multiple business awards such as - Great Place to Work Award, Companies with Great Managers Award, Most Innovative HR Practices Award by NHRD, Best in class for cultural transformation and Best in class for Most Innovative HR practices by People Matters.

Mr. Jha has an enriching experience in talent management, culture change management, capability building, learning & OD interventions, performance management, capability building, employee relations, employee engagement & retention programs.