



**FINANCIAL MANAGEMENT ASSOCIATION  
SHRI RAM COLLEGE OF COMMERCE**



# **PHARMATECH INDUSTRY REPORT 2025**



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# Introduction



India is the largest provider of generic drugs globally and is renowned for its affordable vaccines and high-quality medicines. Over the years, the Indian pharmaceutical industry has evolved into a vibrant sector, currently ranked 4th in pharmaceutical production by volume and 14th in terms of value. The industry has grown at a CAGR of 9.43% over the past nine years and contributes around 1.72% to India's GDP.

Key segments of the industry include generic drugs, over-the-counter medications, bulk drugs, vaccines, biosimilars, biologics, and contract research and manufacturing. India has the highest number of pharmaceutical manufacturing facilities compliant with US FDA standards and hosts over 500 active pharmaceutical ingredient (API) producers, accounting for approximately 8% of the global API market.

Known as the “Pharmacy of the World”, India plays a major role in the manufacturing and supplying of medicines globally. The pharma exports from India reach more than 200 countries in the world. Indian medicines are preferred around the world because of their high quality and low price. India is among the top 10 formulation exporting countries in the world, 4th largest by volume and 14th largest by value.

As per the estimates of Bain & Company the Indian Pharma Sector is valued at \$55 Billions in 2025 and is projected to reach \$120-130 Billions in 2030. This sector is the fifth-largest contributor to GVA and drives 4% of India's FDI, generates trade surplus of about \$19 Billions and provides employment to 2.7 million people directly or indirectly.

# Historical Evolution



## Historical Evolution of India's Pharma-Tech Sector

The historical evolution of India's pharmaceutical and pharma-tech sector reflects a remarkable transition from dependence on foreign medicines to becoming a global powerhouse in drug manufacturing, vaccines, and healthcare technology. In the pre-independence period, India lacked significant pharmaceutical production and relied heavily on imports controlled by multinational companies. Traditional systems like Ayurveda and Unani existed, but modern scientific infrastructure was still undeveloped.

After independence in 1947, the government invested in creating scientific institutions such as CSIR and the Central Drug Research Institute, laying the foundation for pharmaceutical research. Despite these efforts, foreign companies continued to dominate the market

A major turning point came with the Indian Patents Act of 1970, which replaced product patents with process patents. This allowed

Indian manufacturers to reverse-engineer expensive drugs and produce them using alternative processes.

As a result, companies like Cipla, Ranbaxy, and Dr. Reddy's Laboratories flourished, and India became known as the "pharmacy of the developing world" due to its affordable, high-quality generic medicines.

From the 1990s onward, economic liberalization opened the sector to foreign investment and global markets. Indian firms began meeting international standards and rapidly expanded their export capabilities. The post-2005 era, after India adopted WTO-TRIPS obligations, marked another shift as product patents were reintroduced, encouraging greater investment in research, innovation, biotechnology, and specialized drug development.

In recent years, the industry has evolved into a dynamic pharma-tech ecosystem. Technologies such as AI-driven drug discovery, telemedicine, digital health platforms, biotechnology advancements, and smart manufacturing have transformed how pharmaceuticals are developed and delivered. India has also become a global leader in vaccine production, as demonstrated during the COVID-19 pandemic.

Overall, the evolution of India's pharma-tech sector is a story of scientific growth, policy reforms, and technological advancement—one that continues to strengthen India's position as a critical contributor to global healthcare.

# Overview

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## Market size

In 2025, India's domestic pharmaceutical market is projected to reach about USD 66.66 billion, continuing its steady growth from USD 64 billion in 2024. India's middle class has grown to 41% of 1.4 billion citizens in the country, the higher disposable income amongst its citizens and growth of health insurance providers have made medicines more accessible.

## Production capabilities

We produces generic drugs, vaccines, biosimilars, and OTC medicines, supplies one in five generic medicines globally and has risen from seventh place in 2019 to third in global export volume. Pharma companies investing in AI could reduce drug discovery time by 30–40% and cut costs by up to 20%. Dr. Reddy's and Sun Pharma are already piloting AI models for clinical trial selection and predictive toxicology

## Investment Climate

We have over 650 U.S. FDA-approved plant sites, the highest outside the U.S., providing a strong base for conducting clinical trials and developing new drugs. With it, corporate tax rate has been slashed to 22% for existing and 15% for new manufacturing companies

## API Dependence

Importing nearly 70% of Active Pharmaceutical Ingredients, primarily from China. The National Pharmaceutical Policy sets ambitious targets to increase the share of domestically produced APIs that would significantly enhance security.

## FDI liberalization

Going from generic drugs to novel drug discovery, India has significantly liberalized its Foreign Direct Investment (FDI) policy, which has facilitated strategic partnerships between Indian and foreign pharmaceutical companies. One example is Sun Pharma and Merck Sharp & Dohme (MSD) successfully partnering and commercializing tildrakizumab globally.

## E-Pharmacy

Valued at approximately USD 394 million in 2024, with an expected CAGR of 12.6% through 2030, reaching USD 801 million. Despite this growth, only ~5% of total pharma retail sales in India moved online by 2023, indicating enormous untapped potential. Major players like Tata 1mg, PharmEasy, Netmeds, Apollo 24/7, and Amazon Pharmacy have built trusted platforms with diagnostics, doctor consultations, and medicine delivery.

# Leading Indian Companies

## Case Study 1: Sun Pharmaceutical Industries Ltd.

### Introduction

From a pure-play generics manufacturer, the country's largest pharmaceutical company and the world's fourth-largest specialty generics player, Sun Pharma has been gradually transforming itself into a technology-enabled and data-driven pharmaceutical enterprise. Central to sustaining growth in fiercely competitive global markets is its increasing adoption of digital tools, analytics, automated manufacturing, and specialty-focused R&D.

### Tech & Digital Initiatives

#### 1. Digital Manufacturing & Automation

Sun Pharma has implemented smart factories with advanced process control, IOT (internet of things)-enabled sensors, and real-time monitoring systems to enhance quality and reduce batch failures. Robotics, together with automated packaging lines, have reduced human error and increased efficiency in manufacturing.

#### 2. Data-Driven Quality & Compliance

Predictive analytics based on AI is used to identify deviations in production cycles and proactively reduce compliance risk across US FDA (food and drug administration), EMA (European medicines agency), and



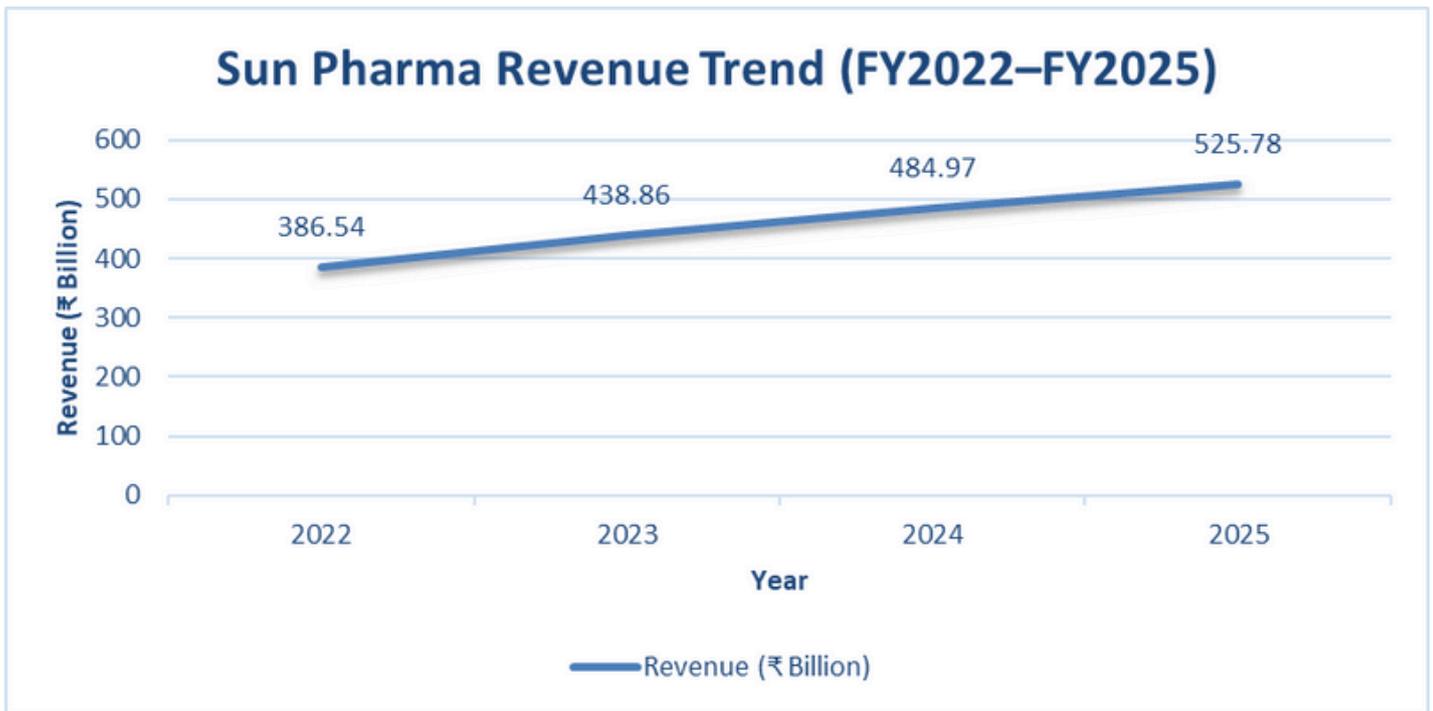
(Therapeutic Goods Administration) global regulatory markets. EBRs (electronic batch records) and digital validation facilitate the process of audits while providing a more transparent quality tracking.

#### 3. R&D Digitalisation

This includes the use of computational chemistry tools, simulation platforms, and machine learning to optimise molecular structures in drug discovery and formulation development, especially in dermatology and ophthalmology, where it has strong specialty portfolios.

#### 4. Supply Chain Technologies

Implemented integrated planning tools supported by AI/ML for demand forecasting. Track-and-trace systems, serialization across markets to combat counterfeits and ensure patient safety.



### Outcome & Impact

Improved manufacturing throughput and reduced operational downtime. Improved regulatory compliance, reduction in manufacturing warnings Specialty revenue growth, notably in dermatology, oncology, and ophthalmology. Stronger global competitiveness due to consistent quality and tech-driven operational excellence.

### Challenges

Heavy dependency on API imports across the industry, though Sun Pharma has been working on backward integration. Integrating legacy systems with modern digital architecture. Pricing pressures in the US generics market.

### Why This Case Matters

Sun Pharma represents how a large-scale Indian pharmaceutical company can transition from traditional manufacturing to a technology-centred and globally competitive pharma-tech organization.

# Case Study 2: Divi's Laboratories

## Introduction

Divi's Laboratories is one of the world's largest manufacturers of active pharmaceutical ingredients and intermediates. Renowned for its process chemistry expertise and engineering excellence.

## Tech & Digital Initiatives

### 1. Process Engineering & Tech-Driven Synthesis

Divi's invests heavily in technologies associated with process intensification like continuous manufacturing lines, high-efficiency reactors, and advanced purification systems. Computational modelling of reaction pathways can be used to increase yield and minimize waste.

### 2. Automation & Plant Digitalisation

High degree of automation in manufacturing blocks and solvent recovery units.

Controls based on SCADA (Supervisory Control and Data Acquisition) monitor the temperature, pressure, levels of solvent, and critical steps of reaction continuously. It improves energy efficiency with automated waste-heat recovery systems.

### 3. Specialized Technology Platforms

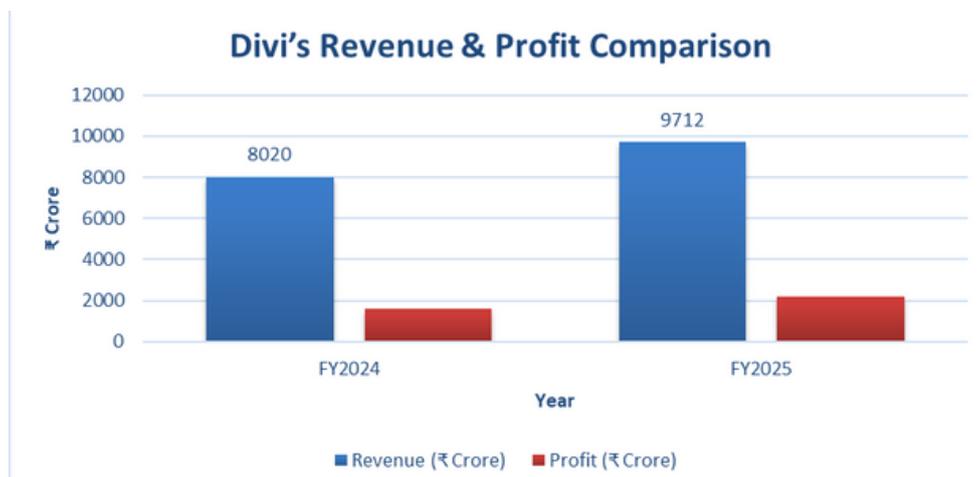
Divi's has developed proprietary capabilities in:

- Chiral chemistry
- PEGylation
- Carbapenem intermediates
- Nutraceutical APIs include carotenoids.

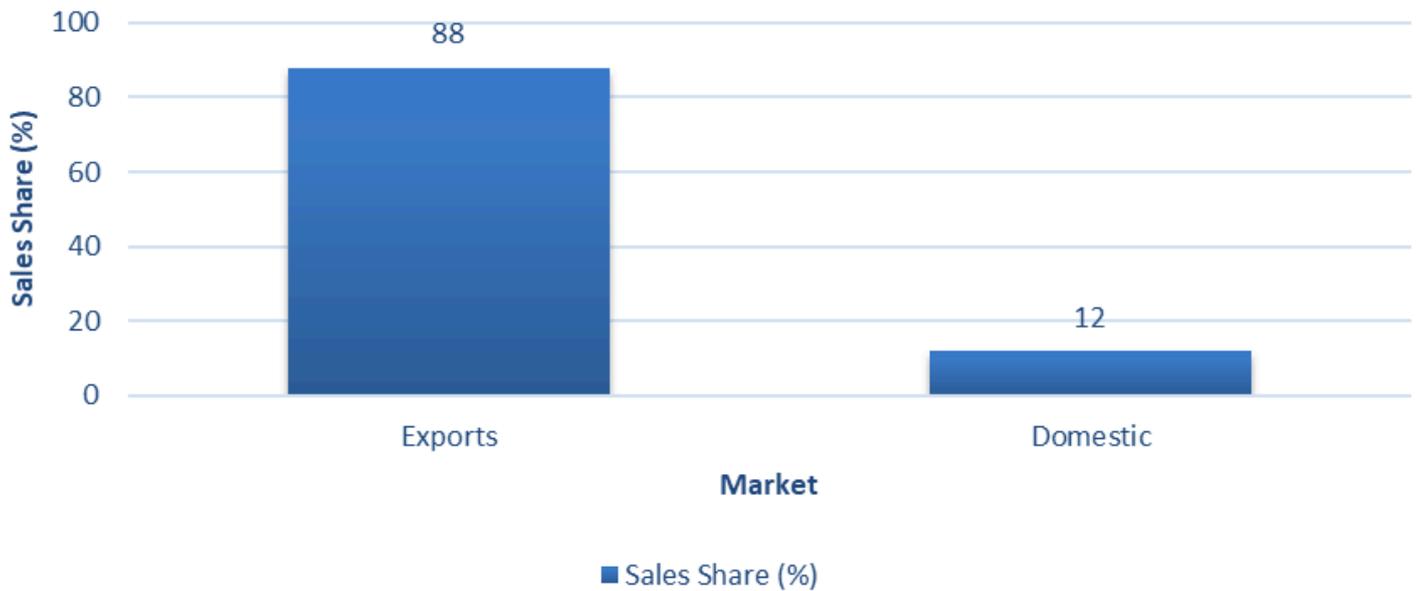
These capabilities depend on advanced analytics and precision engineering, turning Divi's into a preferred supplier for global innovators.

### 4. Supply Chain & Integrations

Emphasis on backward integration through in-house production of key intermediates reduces the company's reliance on imports.



## Divi's Sales Distribution FY25



### Outcome & Impact

Stable margins among the best in the Indian pharma sector, driven by tech-led efficiencies. Strong relationships with global innovators and generics companies. Improved operational safety and environmental performance. Global leadership in various API-niche categories.

### Challenges

High capital intensity owing to continuous manufacturing capacity expansion. Regulatory risks related to US FDA and other agencies Market volatility in API pricing. Why This Case Matters Divi's epitomizes how Indian API manufacturers can maintain global leadership through deep chemistry expertise, engineering innovation, and disciplined technology adoption, earning it the benchmark in the pharma-tech API segment.

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**Divis Laboratories Ltd.**

# Comparative Analysis

## Market Size & Growth

The global pharmaceutical market in 2025 is valued at approximately \$1.6 trillion.

India's pharmaceutical market stands at \$55 billion, contributing about 3.4% of the global value but ranking third globally by volume due to its dominance in generics.

## Exports & Global Reach

India exported \$30.5 billion in pharma products in FY2025, a 9.3% YoY increase. Expected to hit \$65B by 2030.

India supplies 20% of global generic medicines and about 55–60% of global vaccine demand.

In contrast, the U.S., EU, and Switzerland dominate with high-value patented drugs and biologics, not just in volume but also in revenue per unit sold.

## R&D Spending

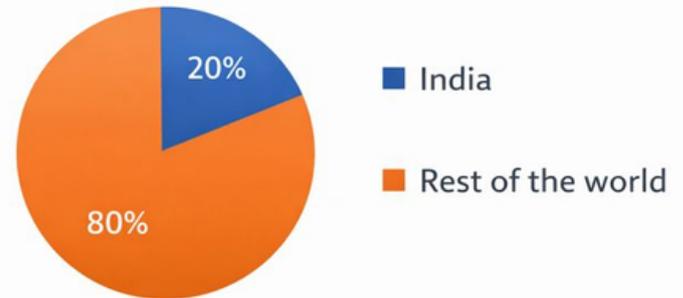
Global pharmaceutical giants (e.g., Pfizer, Roche, Novartis) invest 15–22% of annual revenue in R&D.

U.S. firms: ~18–22% revenue spent on R&D.

European majors: Similar-high R&D intensity.

Indian pharma companies: 5–8% of revenue invested in R&D (Sun Pharma, Dr. Reddy's, Cipla, Lupin, etc.), much lower than global peers.

## Production of Generic Medicines



Source: IQVIA

## Innovation & Technology

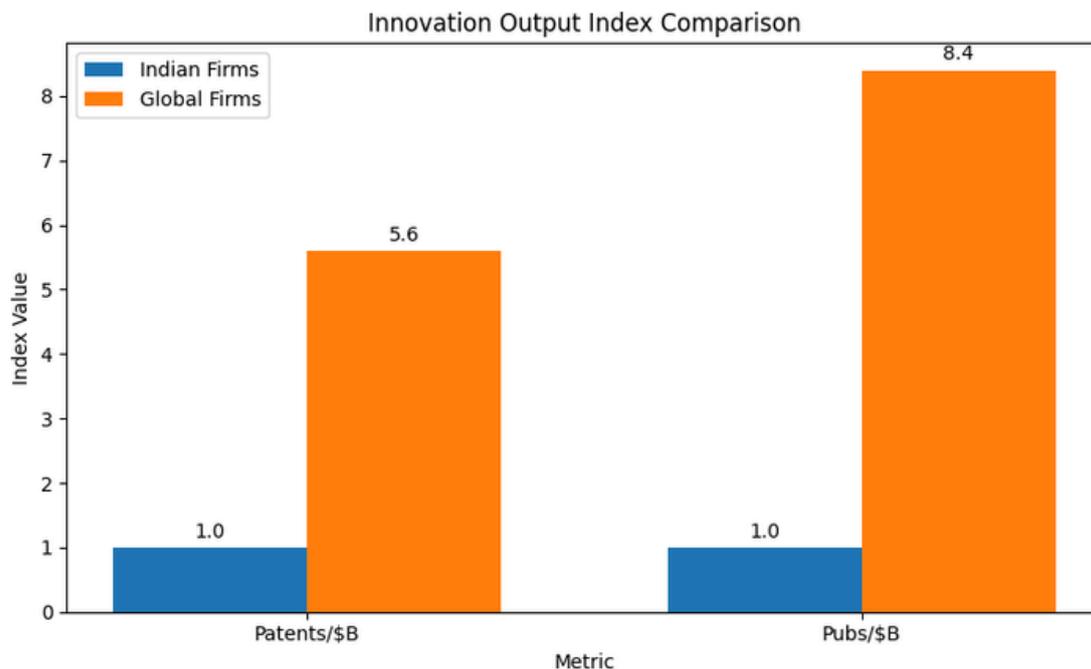
Global firms generate 5.6x more patents and 8.4x more publications per billion USD revenue than Indian firms.

Top global firms lead in AI-driven drug discovery, personalized medicine, digital clinical trials, and biologics pipeline, whereas Indian firms focus on process innovation, complex generics, and biosimilars.

## Capability Centers & Globalization

Nearly 50% of top 50 global pharma companies have set up global capability centers (GCCs) in India.

Indian CRDMOs (Contract Research & Development and Manufacturing Organizations) are evolving from low-cost producers to high-value, innovation partners in the \$303B global CRDMO industry



### Innovation & Technology

- Global firms generate 5.6x more patents and 8.4x more publications per billion USD revenue than Indian firms.
- Top global firms lead in AI-driven drug discovery, personalized medicine, digital clinical trials, and biologics pipeline, whereas Indian firms focus on process innovation, complex generics, and biosimilars with rising investments in AI/data but fewer original molecules and patents.

### Summary Insights

- India is the “pharmacy of the world” for generics and vaccines, but lags in R&D intensity, new molecule innovation, and high-value biologics compared to the U.S. and EU.
- Rapid export growth and GCC expansion are moving India from high-volume, low-value towards higher-value innovation roles.
- To close the gap with global leaders, increased R&D, regulatory reform, and ongoing digitalization are necessary.

Metric	India (2025)	Global (2025)
Market Value	US\$ 35 Bn	US\$ 1,650 Bn (total)
R&D Spend (% of Revenue)	8-10%	15-25% (US); 8-10%
Generics Market	20% of global supply	—
Vaccines Share	55-60% of UNICEF	—
Revenue per Bn	Index: 1.0 (similar)	Index: 5.6, AI-driven
Major Focus Areas	CDMO, Biosimilars	Biologics, AI-driven,
Projected CAGR (2025-)	10%	6-7%

# Market Analysis of Pharma Industry

## Cost Efficiency

- Industry provides cost-effective treatment using the latest technology enabled by the pathbreaking reforms and provisions in the healthcare sector and has emerged as the medical tourism hub.
- It provides access to low-cost HIV treatments.
- It also accounts for about 60% of the global vaccine production and is the largest vaccine producer in the world. It is also one of the biggest low-cost vaccine producer, making it “The Pharmacy of the World”.

## Investment

- Upto 100% FDI allowed via automatic route for greenfield investments, 74% via automatic route for brownfield investments and rest by government approval.
- The Drugs & Pharmaceuticals sector received FDI inflow of Rs. 2,10,940 crore (US\$ 24.62 billion) from April 2000-June 2025.
- Union Budget 2025-26: Allocation of Rs. 5,268 crore (US\$ 602 million) for the Department of Pharmaceuticals, up 28.8% over previous budget estimates.
- India’s pharmaceutical R&D is projected to receive Rs. 17,000 crore (US\$ 2 billion) by FY28.

## Market Size

- According to the reports of Bain & Co, Indian pharmaceutical market stood at ₹4,71,295 crores (US\$55 billion) and is projected to grow to ₹10.28lac crores to 11.13 lac crores (US\$ 120-130 billion) by 2030.
- In FY 2025 the total domestic consumption was about 2.38 lac crores (US\$ 26.63 billion).
- India has the largest number of USFDA-compliant plants outside the US and over 2,000 WHO-GMP approved facilities exporting to 150+ countries.

## Policy

- PLI scheme: Rs. 15,000 crore (US\$ 2.04 billion) outlay (2020-21 to 2028-29) to boost manufacturing, investment, and product diversification.
- Strengthening of Pharmaceutical Industry (SPI): Rs. 500 crore (US\$ 60.6 million) to support pharma clusters and MSMEs in productivity, quality, and sustainability.
- Under the Pradhan Mantri Bhartiya Janaushadhi Pariyojana, 16,912 Jan Aushadhi Kendras are operational as of June 30, 2025, with a target of 25,000 by March 2027, offering 2,110 medicines and 315 devices/consumables to promote affordable quality generic healthcare.
- Government disbursed Rs. 604 crore (US\$ 69.76 million) under the PLI scheme in H1 FY25.

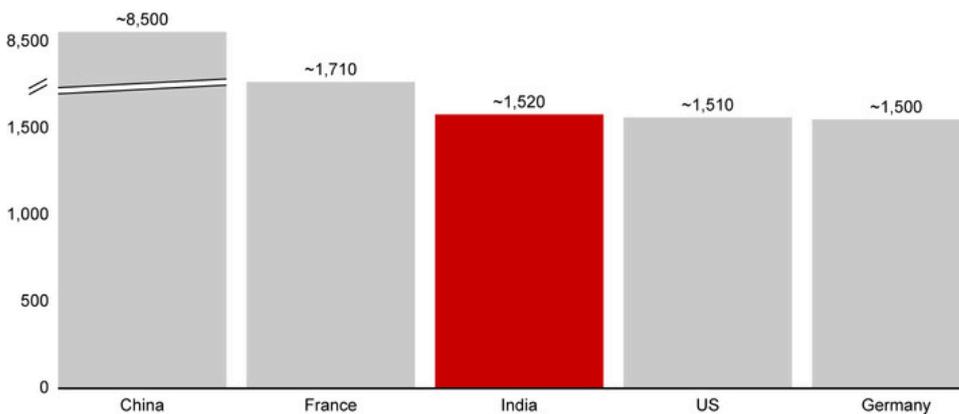
# Growth in the Pharma Sector

The global pharmaceutical market currently stands at about \$1.6 trillion, with the Indian market valued at approximately \$55 billion. This is expected to grow 2.2 to 2.4 times by 2030, reaching \$120 billion to \$130 billion in value and increasing India's share from 3% to 3.5% currently to nearly 5% by 2030. The Indian pharma market is unique in that its export market is as large as its domestic market, and both are expected to grow in the foreseeable future. Indian pharma exports currently play a pivotal role in the growth of the economy, accounting for 6% of India's total merchandise exports by value.

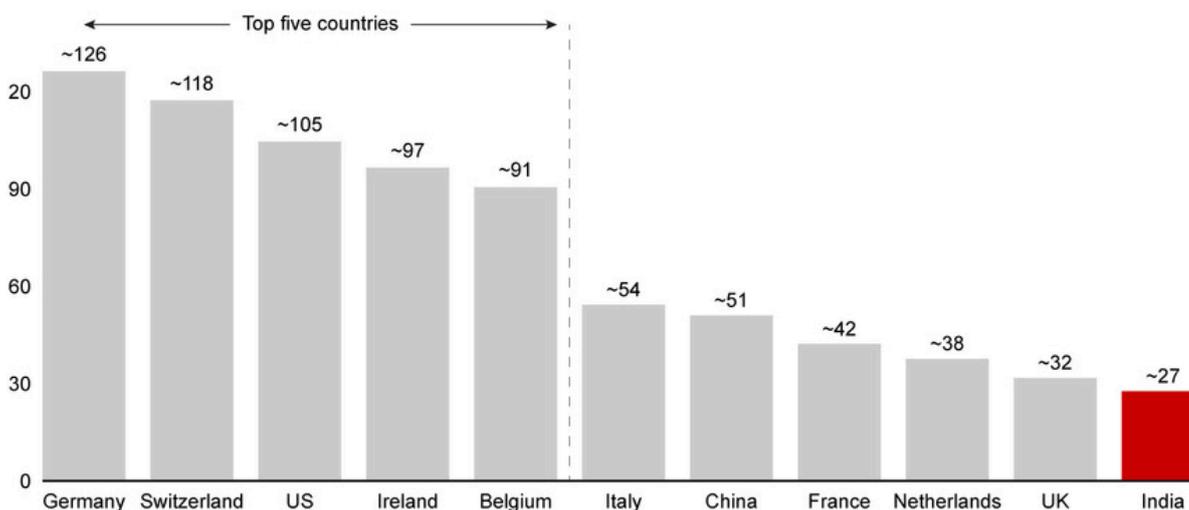
The Indian pharma market, currently valued at \$55 billion, is expected to reach \$120 billion to \$130 billion by 2030 and to approach \$450 billion by 2047.

In 2023, Indian exports amounted to \$27 billion—a jump from \$19 billion in 2018—reflecting a growth of 8% p.a. Most of these exports (more than 70%) are formulations, with bulk drugs and drug intermediates comprising approximately 20%. Other export segments include vaccines, biosimilars, and innovative products (NCEs, NBEs).

## INDIA IS THE THIRD-LARGEST NATION IN TERMS OF PHARMA EXPORTS BY VOLUME



## INDIA IS RANKED 11 ON LIST OF TOP PHARMACEUTICAL EXPORTING NATIONS BY VALUE



# Latest Performance Report

The Indian Pharmaceutical Market (IPM) concluded 2025 with a total valuation of ₹2,40,672 crore, registering a value growth of 8.1%. As per the Pharmarack Indian Pharma Industry Performance report, the market is expected to sustain a similar growth momentum of 7.8–8.1% in 2026, indicating continued resilience despite fluctuations in volume growth. Throughout 2025, all major therapy segments maintained positive value trajectories, reinforcing the structural strength of the domestic pharmaceutical industry.

Market expansion during the year was driven by three primary levers—price increases, new product introductions, and volume adjustments. In the period ending November 2025, pricing accounted for a 5.4% contribution, while new product launches added 2.1% to overall growth. Volume growth remained relatively muted at 0.5%, yet total value growth reached nearly 8%, closely aligning with industry expectations. By December 2025, the market showed further consolidation, with value growth accelerating to 10.6% and unit growth improving to 2.6%, signaling a gradual strengthening of consumption across therapy areas.

The IPM continues to be characterized as a predominantly premium-led market, where value expansion has outpaced volume growth. Strategic collaborations formed in late 2025 between global innovators and domestic pharmaceutical companies are expected to enhance market penetration and improve patient accessibility in the coming months. Beginning March 2026, the anticipated entry of branded generics, typically priced at 20–35% of innovator products, is expected to trigger a 2x–5x surge in unit consumption during the initial 2–3 months, although this transition may lead to some moderation in value growth due to pricing pressures.

Domestic players such as Dr. Reddy's Laboratories, Sun Pharma, and Zydus Lifesciences are well positioned to capitalize on these emerging opportunities, particularly within chronic and lifestyle-oriented therapy segments. Structurally, the IPM continues to operate across four broad segments: high-growth lifestyle therapies, demographics-driven treatments catering to an ageing population, mature acute therapies, and OTC-focused categories. Looking ahead, anti-diabetic and urology therapies are expected to remain key growth drivers, supporting the overall 7.8–8.1% growth outlook for 2026.

# Indian pharma companies to show healthy revenue growth of 7-9% in FY2026, even as US market risks loom: ICRA

India's pharmaceutical sector is expected to witness moderate yet stable growth in FY2026, despite global uncertainties and regulatory risks in key export markets. According to ICRA, revenues for its sample set of companies are projected to grow 7–9%, driven primarily by strong domestic demand and steady performance in Europe.

The domestic market remains the key growth engine, with revenues expected to rise 8–10%, supported by sales force expansion, deeper rural penetration, new product launches, and market share gains in chronic therapies. Despite muted volume growth in branded generics due to rising genericisation, price hikes and product mix improvement continue to support value growth. Recent government measures, including GST exemptions and rate reductions on select medicines and medical supplies, are expected to further improve affordability and access.

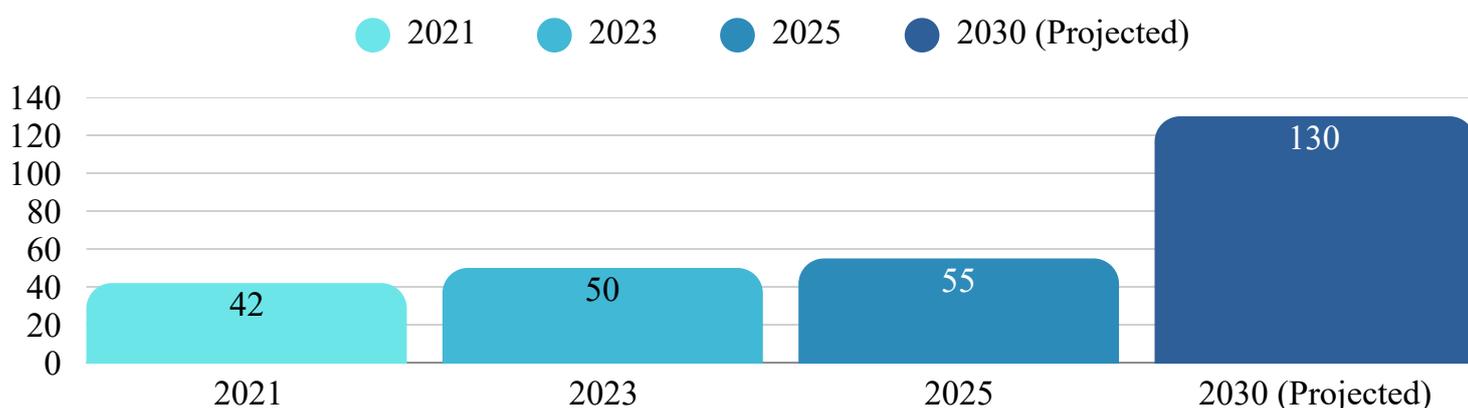
In contrast, the US market outlook is cautious, with growth slowing to 3–5% in FY2026 from

nearly 10% in FY2025, mainly due to price erosion and declining sales of lenalidomide. Ongoing USFDA regulatory scrutiny, potential future tariff risks, and the proposed MFN pricing policy remain key monitorables that could impact profitability and launch timelines.

The European market is expected to grow 10–12%, supported by new product launches, particularly in nicotine-replacement therapies, injectables, and respiratory drugs.

Operating profitability is expected to remain resilient at 24–25%, aided by favourable raw material prices, operating leverage, and a higher share of specialty products. R&D spending is likely to remain stable at 6–7% of revenues, reflecting a strategic shift toward complex and specialty products. Rising capex and acquisitions may moderately increase leverage, though strong liquidity and healthy balance sheets support ICRA's Stable outlook for the sector.

## Indian Pharmaceuticals Market (US\$ billion)



<https://www.ibef.org/industry/pharmaceutical-india/infographic>

# SWOT Analysis of Industry

## **Strength:**

- **Robust Manufacturing Base:** India boasts a vast network of over 10,500 manufacturing units and around 3,000 pharmaceutical companies,
- **Cost Advantage:** The country has a competitive edge in production costs, allowing for affordable drug manufacturing without compromising quality.
- **Global Compliance:** A significant number of Indian pharma companies comply with international regulatory standards, including those of the US FDA, making them eligible for global markets.
- **Strong Government Support:** The Indian pharmaceutical sector is evolving with significant government initiatives and active participation from the private sector.

## **Threats:**

- **Intense Competition:** The global pharmaceutical market is highly competitive, with numerous players vying for market share, leading to pricing pressures.
- **Regulatory Changes:** Stringent regulations and compliance requirements in international markets can pose challenges for Indian manufacturers.
- **Health Crises:** Events like the COVID-19 pandemic can disrupt supply chains, impact production, and alter demand patterns in the pharmaceutical sector.

## **Weakness:**

- **Quality Control Issues:** Despite compliance with global standards, incidents of quality control failures have raised concerns about the reliability of some manufacturers.
- **Limited Focus on Innovative Drugs:** The sector has historically emphasised generics over original drug development, which may hinder long-term growth and market diversification.
- **Quality Issues:** Illegally manufactured, diverted, counterfeit, or adulterated products are quickly exposed to the black market and distribution networks. Consumers often purchase loose tablets instead of complete strips, rendering solutions like barcodes and holograms ineffective in addressing these challenges.

## **Opportunities:**

- **Growing Global Demand:** Increasing healthcare needs worldwide, particularly in emerging markets, present opportunities for expansion and export of Indian pharmaceuticals.
- **Biotechnology Advancements:** The rise of biotechnology and personalized medicine opens new avenues for research and product development.
- **E-commerce Growth:** The growing trend of online pharmacies and telemedicine can enhance distribution channels and access to medicines.
- **Government Support:** The Indian government's initiatives to boost the pharmaceutical sector, including the Production-Linked Incentive (PLI) scheme.

# Factors Affecting Industry

## **Technological Advancements**

Rapid development in technologies like AI, machine learning, big data analytics, cloud computing, and blockchain is driving drug discovery, clinical trials, manufacturing, and supply chain management. Automation and digitalization improve efficiency, accelerate timelines of development, and enhance precision in research and manufacturing.

## **Research & Development Intensity**

The pharmaceutical technology industry is very dependent on heavy R&D investment. Increasing costs of drug discovery, very complex clinical trials, and lengthy development cycles therefore remain key determinants of adoption. Firms with robust R&D capabilities attain a competitive advantage through accelerated innovation and higher success rates.

## **Regulatory Environment**

Stringent and changing regulations set by authorities like the FDA, EMA, CDSCO, and WHO have a great bearing on the uptake of pharma technology. Compliance needs in areas like data integrity, patient safety, cybersecurity, validation, and quality assurance increase operation costs but also drive demand for advanced compliance technologies.

## **Intellectual Property Protection**

Patent laws and IP protection mechanisms are central in shaping innovation. Strong IP regimes incentivize investment in sophisticated pharmaceutical technologies, while patent expiries and laxity in enforcement would dampen long-term R&D spending.

## **Cost pressures and price controls**

Because of this, governments and health systems are tightening drug prices and curbing spending. That squeeze is nudging pharma breeders to adopt cost-cutting technologies-better yields, cheaper manufacturing, smarter supply chains-refreshing how pharma tech grows.

## **Demand for personalized and precision medicine**

The trend towards personalized care, genomics, and biologics is driving demand for sophisticated tools: bioinformatics, digital diagnostics, and AI-powered analytics. This trend is redefining R&D workflows and the way we manufacture.

## **Handling data and cybersecurity**

We deal with big sets of clinical, genomic data, and patient data; thus, secure digital platforms would be necessary. Main drivers of technology investments: privacy concerns, cyber risks, and compliance with data laws.

### **Manufacturing upgrade**

Moving onto continuous production, smart factories, and Industry 4.0-the way we operate will change. Robotic systems, IoT-enabled equipment, and real-time monitoring raise quality control and regulatory alignment.

### **Supply Chain Complexity**

Global supply webs bring up risks: material shortfalls, geopolitics, logistics hiccups. Digital supply chain tools that enhance traceability, forecasting, and resilience are increasingly vital.

### **Gaps in talent and shortage of skills**

A talent shortfall for skilled pros within AI, data science, regulatory tech, and bioinformatics holds tech rollout back. Filling the gap with upskilling and cross-disciplinary expertise-a key driver of growth

### **Collaboration and Partnerships**

Innovation speed and market expansion are influenced by strategic collaborations between pharmaceutical companies, technology firms, startups, and academic institutions. The open innovation models promote faster diffusion of technology across the industry

### **Global Health Trends and Pandemics**

Public health emergencies like COVID-19 accelerated the adoption of digital clinical trials, remote monitoring, and rapid manufacturing technologies, permanently influencing pharma tech investment priorities.

### **Sustainability and ESG consideration**

Environmental regulations and ESG expectations are pushing companies to adopt green manufacturing technologies, energy-efficient processes, and waste-reduction systems. This influences not only technology selection but also capital expenditure decisions.

### **Market Competition and Industry Consolidation**

Increasing competition and mergers & acquisitions drive firms to adopt advanced technologies to maintain market share, achieve scale efficiencies, and enhance innovation pipelines.

### **Government Policies and Incentives**

Government initiatives, subsidies, and policies that promote pharmaceutical innovation, digital health, and domestic manufacturing are some of the key factors that influence technology adoption in emerging markets like India.

# Government Initiatives

## 1. Production-Linked Incentive (PLI) Schemes

The Government of India has introduced multiple PLI schemes to strengthen the domestic pharmaceutical ecosystem, reduce import dependency, promote high-value manufacturing, and position India as a global hub for innovation-driven pharma technologies. The PLI programme is especially relevant for the pharma-tech sector, as it incentivises companies to invest in automation, advanced process technologies, digitised manufacturing, and R&D capabilities.

### **PLI Scheme for Pharmaceuticals (High-Value Products)**

Launched in 2021 with an outlay of ₹15,000 crore, this scheme encourages the production of complex generics, in-vitro diagnostics, biopharmaceuticals, and novel formulations. It targets segments with high technological barriers, such as biosimilars, specialty drugs, and precision-medicine platforms.

Companies are rewarded based on incremental sales from products manufactured using advanced technologies. The scheme has pushed large firms to modernize manufacturing lines with robotics, AI-enabled quality control, and digital compliance systems.

### **PLI for Bulk Drugs (APIs, KSMs, DIs)**

To reduce dependence on China for critical raw materials, India launched a ₹6,940-crore PLI scheme focusing on 53 priority APIs such as fermentation-based antibiotics, vitamins, and cardiovascular drugs.

This has led to large-scale investments in:

- Continuous manufacturing systems
- Digital reactors and automated control systems
- Large greenfield API clusters

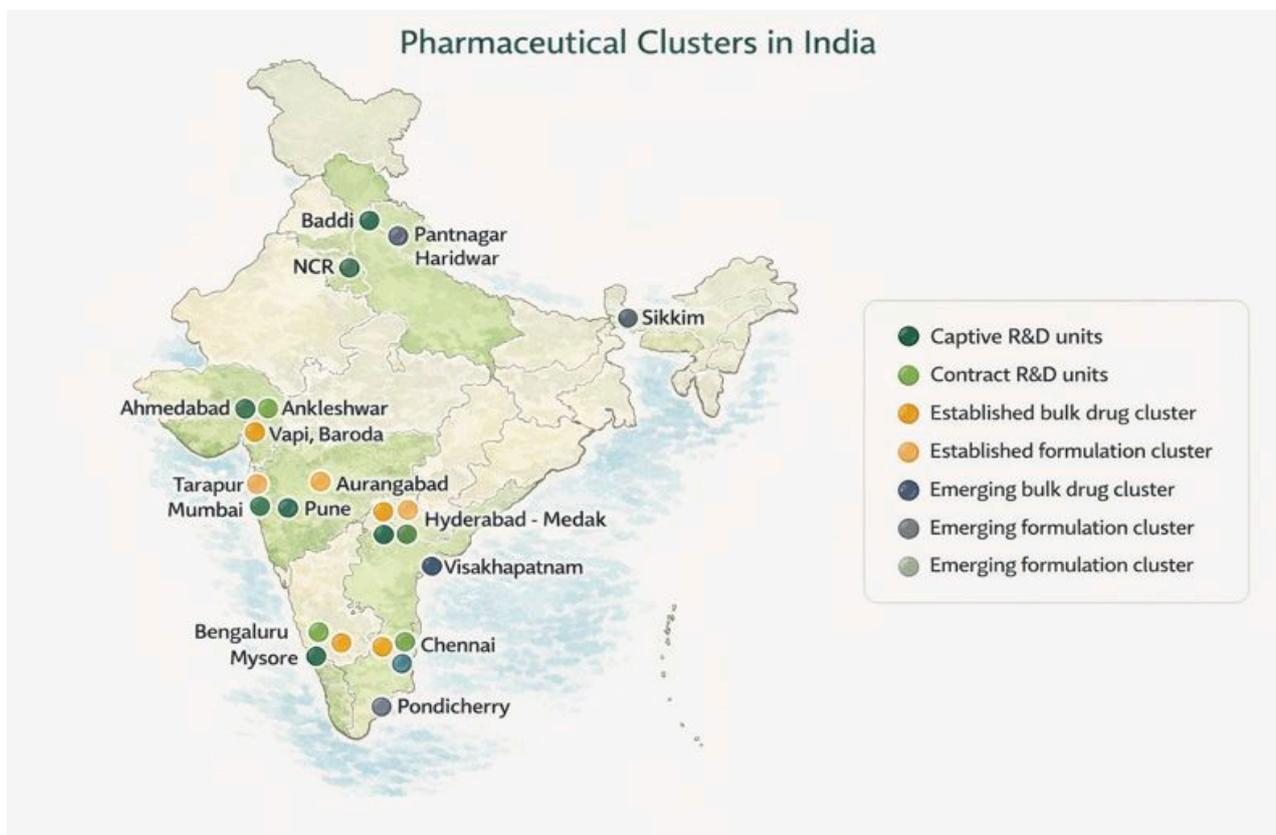
By 2024–25, more than two-thirds of the greenfield PLI projects were already operational, contributing to import reduction and improved self-reliance.

### **PLI for Medical Devices**

The scheme supports high-tech medical device manufacturing—stents, implants, diagnostic equipment—and has encouraged companies to adopt digital production technologies, smart testing systems, and integrated supply-chain solutions.

Overall Impact:

- Strengthening domestic supply chains
- Boosting high-value exports
- Enhancing digital adoption in manufacturing
- Increasing R&D competitiveness
- Reducing import dependency for APIs and medical devices



## 2. Infrastructure Development for the Pharma Sector

Infrastructure has been one of the biggest focus areas for enabling global competitiveness in India's pharma-tech industry. The government has launched multiple industrial parks, clusters, and bulk-drug hubs with plug-and-play facilities to enable cost-efficient manufacturing.

### Bulk Drug Parks

Three major bulk drug parks have been sanctioned in:

- Andhra Pradesh (Kakinada)
- Gujarat (Ankleshwar)
- Himachal Pradesh (Una)

Each park includes shared infrastructure such as solvent recovery units, testing labs, effluent treatment systems, warehousing, and power & water utilities. These facilities reduce setup costs for manufacturers by up to 30%.

## Pharma Cluster Development

- Common GMP testing centres
- Digital validation services
- Automation-testing labs
- Shared R&D resources

## Digital Infrastructure

The government is also promoting:

- e-BPR and e-quality systems for faster regulatory approvals
- Online licensing portals
- National Single Window System for clearances
- Track-and-trace systems for exports (GS1 barcoding)

## Impact:

Infrastructure initiatives have improved cost efficiency, streamlined regulatory processes, and created a technology-ready environment for both large companies and MSMEs.

### 3. Jan Aushadhi & Healthcare Reforms

India's pharma-tech ecosystem is also supported by healthcare reforms that focus on affordability, quality control, and public access.

Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP)

Key Features:

- More than 16,000+ Kendras operational across India (as of 2025).
- Medicines are 50–90% cheaper than branded alternatives.
- Includes essential medicines, surgical items, feminine hygiene products, and wellness products.
- Integrated IT systems ensure supply-chain efficiency and quality tracking.

### Digital Health Initiatives

Under the Ayushman Bharat Digital Mission (ABDM), the government launched:

- Unique Health IDs (ABHA)
- Digitised prescriptions
- Electronic medical records
- Telemedicine platforms



### 4. Skill Development Initiatives

Skill development is essential for building a technology-ready pharma workforce. The government has focused on specialised programs in chemistry, biotechnology, bioprocess engineering, and digital manufacturing.

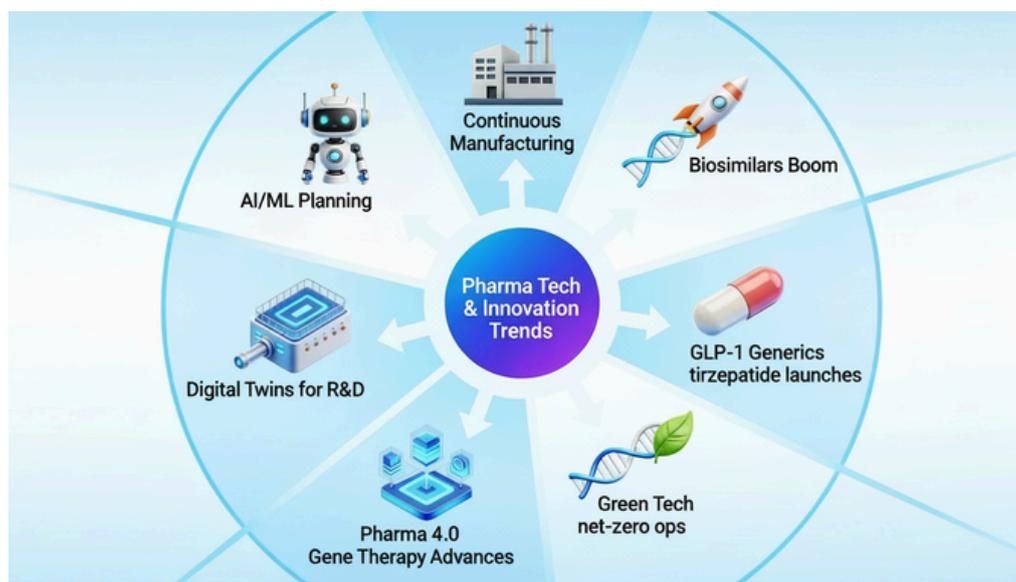
Pharma Skill Development Programs

- Life Sciences Sector Skill Development Council (LSSSDC) – Offers training modules for laboratory technicians, chemists, production operators, and quality analysts.
- National Skill Development Corporation (NSDC) – Collaborates with pharma companies for industry-aligned courses.
- Pradhan Mantri Kaushal Vikas Yojana (PMKVY) – Includes skill tracks for medical equipment technicians, pharmaceutical packagers, and process associates.

### **Impact:**

Skill development initiatives have helped build a talent pool capable of handling advanced technologies such as automation, AI-driven analytics, and biologics manufacturing.

# Innovation & Technology Trends



## Growth of Biosimilars

India has emerged as a global leader in the biosimilars (alternative to expensive biologic drugs) market, with companies like Biocon, Cipla, and Dr. Reddy's Laboratories.

## COVID-19 Response

Serum Institute of India, the world's largest vaccine manufacturer, produced the Covishield vaccine in partnership with AstraZeneca. Bharat Biotech developed the Covaxin vaccine, reinforcing its reputation as a global leader in vaccine production.

## With Global Pharma Giants

Dr. Reddy's Laboratories has partnered with Eli Lilly for the development of new treatments. Cipla has collaborated with Boehringer Ingelheim to develop therapies.

## Research and Development

Companies like Dr. Reddy's Laboratories, Lupin, and Cadila Healthcare are increasingly investing in the development of new chemical entities (NCEs), generic formulations, and biologics.

## Expansion of Pharmaceutical Exports

Increased, with major markets including the US, Europe, and Africa. The country also remains the largest exporter of vaccines globally, while tapping into emerging markets in Africa, Latin America, and Southeast Asia.

## Strengthened Compliance

The Central Drugs Standard Control Organization (CDSCO) has been working on enhancing compliance with international standards, especially in areas like Good Manufacturing Practices (GMP).

# Impact of AI On The Industry

## 1) Research & Development:

Pharma industries around the world employ Artificial Intelligence tools to streamline the drug discovery process. They make the process of identifying nuanced patterns from datasets easier, and they can be applied to solve problems involving complex biological networks.

This study focuses on identifying patterns in diverse diseases and determining which drug is best for treating the disease's distinct characteristics. This helps them invest in the areas they decide to focus on the highest chances of successfully treating a disease or medical condition.

## 2) Drug development

Pharmaceutical companies are looking to artificial intelligence to increase the success rates of new drugs and cut costs on operations.

## 3) Diagnosis

Machine learning systems can be used by doctors to gather, interpret and analyze healthcare data. Healthcare workers are utilizing the power of machine learning to store highly sensitive patient history in a centralised storage system or securely on the cloud collectively known as electronic medical records (EMR).

Machine learning helps to process and analyze a huge chunk of data quickly, and it helps in diagnosis, thereby saving the lives of patients.

## 4) Disease Prevention

Pharma companies utilize AI to develop cures for both known as well as unknown and rare diseases. They don't spend time and resources on finding treatments for rare diseases. Companies see no ROI when they invest in research to find treatments for rare diseases. As for the time and resources invested, the turnover is rather low. Research on finding treatments for rare diseases is a drop in the bucket when compared to the time and money it takes to discover treatments to treat patients.

## 5) Epidemic Prediction

Artificial intelligence is being employed all around the world to track and predict pandemic breakouts. Post covid this has become even more profound. They use data from a wide variety of resources to examine the relationship between various geological, environmental, and biological elements and the health of populations in various geographic regions, as well as the links between these factors and prior epidemics.

## 6) Remote Monitoring

It is a breakthrough in Pharma and healthcare as pharma companies have already developed wearables powered by algorithms to remotely monitor patients suffering from life-threatening diseases.

Also, the introduction of telehealth apps through which AI can diagnose certain diseases, some even before the patient shows the symptoms have shown us that AI is going to be an integral part of the future of pharma.

For Example, the smartphone camera will capture hand movement when it detects it, allowing the degree of Parkinson's symptoms to be determined.

# Future Prospects



By 2047, India's drug industry is projected to reach \$450 billion. To further boost healthcare manufacturing, the Indian government aims to expand its share in the global medical devices market from the current 1.5% to 12% by 2030. For this purpose, it has launched the Production Linked Incentive (PLI) scheme, which has a financial outlay of \$400 million.

The PLI scheme targets the manufacture of cancer care devices, radiology and imaging equipment, anesthetic devices, and a variety of implants, encouraging large-scale private sector investment.

Intellectual property activity in the industry is also strong; in 2023, the pharmaceutical sector accounted for the highest number of patent applications filed in India. Looking ahead, the Indian pharmaceutical sector is projected to more than double its market value to \$130 billion within the next six years.

A major growth driver for the industry is the rising focus on biologics and biosimilars, especially as global biologics worth over \$90 billion approach patent expiry by 2030. The Indian domestic biosimilars market—currently valued at \$3 billion—is expected to grow to \$10 billion by 2030, positioning India as a significant global player in this space.

Growth in the pharmaceutical sector will be primarily driven by patented drugs, branded generics, and trade generics. Although patented drugs currently make up a smaller portion of the market, their presence is expected to grow, reaching a market size of Rs 15,500 crore by 2030.

Domestic pharma sales are also set for rapid expansion. According to IQVIA, sales are expected to climb from \$25 billion in 2024 to \$50 billion by 2030, with more than 40% of this growth coming from Tier II and Tier III cities. This reflects the increasing healthcare needs and rising accessibility in semi-urban and rural India.

Branded generics dominate the market, accounting for 87% of sales. These were valued at Rs 2.1 trillion in 2023 and are expected to rise to Rs 3.71 trillion by 2030, highlighting ongoing demand for affordable, high-quality medications.

The trade generics segment, focusing on underserved populations through programs like Jan Aushadhi stores, is also expanding. Its market share is projected to grow from 0.5% to 1.1% by 2030, broadening access to essential medicines. Alongside this, the pharmaceutical distribution sector is becoming more efficient, as an increase in organized stockists streamlines drug delivery throughout the country.

We are set to surge to \$130-450 billion by 2030-2047, fueled by biosimilars, medical devices via PLI schemes, domestic sales doubling to \$50 billion.

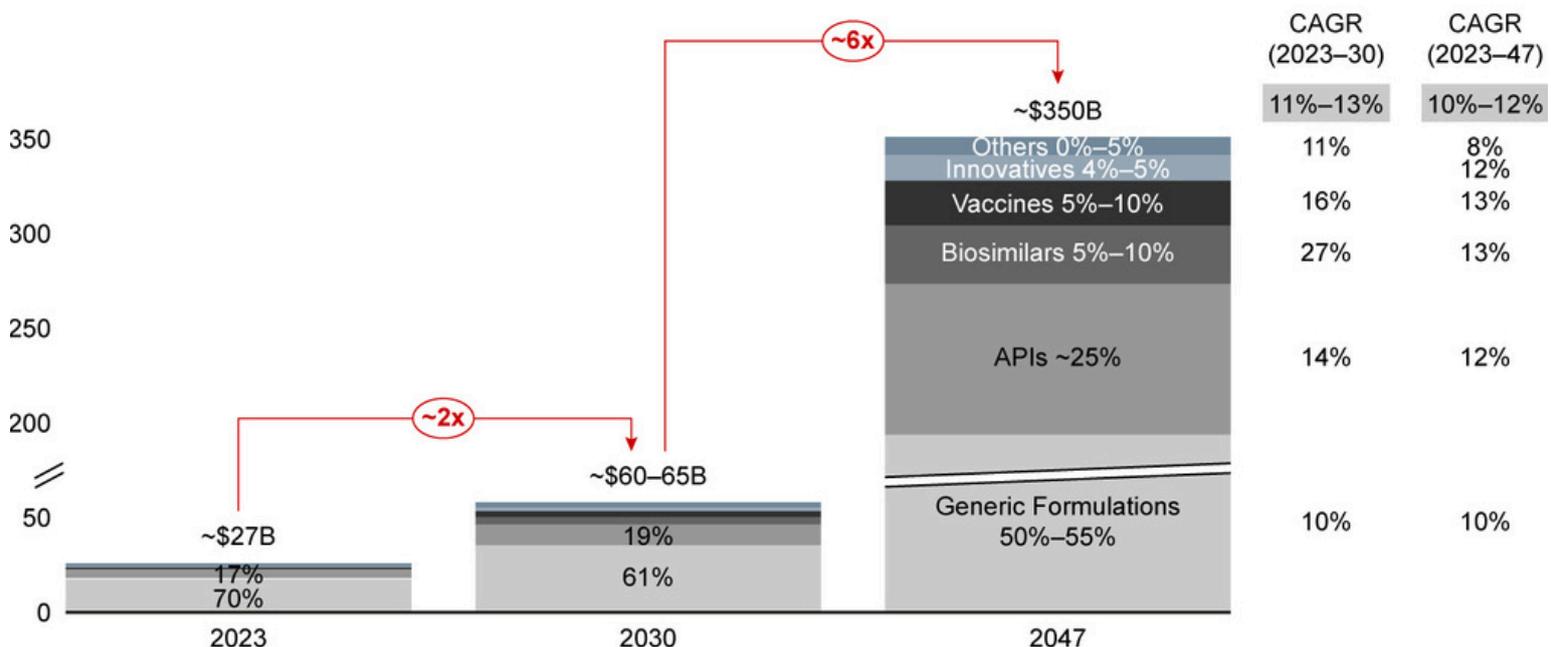
Technology	Technology	Technology
Artificial Intelligence (AI)	Revolutionizing drug discovery, 80% adoption by 2030	80% by 2030
Machine Learning (ML)	Enhancing cost predictive models in drug 70% adoption	70% in drug testing
Blockchain	Ensuring transparency and security in 60% adoption in supply chain	60% in supply chain
Automation Robotics	Reducing production costs and improving 65% adoption in large-scale manufacturing	65% in large-scale manufacturing

# Vision Pharma-2047

By the year 2047, the Government aims to accomplish the following goals:

- Make India a global leader in the manufacturing of affordable, innovative & quality pharmaceuticals & medical devices for the goal of Vasudhaiva Kutumbakam
- Vishwaguru in innovation & Research for delivering health care products to future generations in a sustainable manner, introducing natural products
- Ensure accessibility & affordability of patient-centric products for better healthcare outcomes for universal health coverage by building upon partnerships across industry, science and governments
- Contribute to the Health System to attain a union of equity, efficacy, and efficiency towards developing a holistic products profile with a focus on NCDs, AMR, and rare & neglected diseases
- Create equilibrium between social, economic, & governance aspects through facilitative, balanced & progressive policy and regulatory framework
- Reduce India's carbon footprint in Pharma-MedTech to align with Hon'ble PM's vision of Panchamrita
- Identifying critical suppliers, de-risking & decarbonising the supply chain, and promoting local sourcing
- Medical Devices to be an integral part of global supply chains for raw materials, components, spare parts, assemblies/subassemblies, etc.
- Digitisation and technology upgradation in the delivery of services & products under Jan Aushadhi Pariyojana

India's pharma exports for 2023, 2030, 2047 (\$B)



# Challenges



Below are some of the key challenges currently faced by India's pharmaceutical sector:

## 1.Regulatory Challenges:

As the sector expands its global footprint, Indian pharmaceutical companies must comply with diverse regulatory standards set by markets like the U.S. FDA and European Medicines Agency (EMA). This can be costly and time-consuming for companies, especially smaller ones.

## 2.Infrastructure and Logistics Issues:

Inadequate infrastructure in certain regions, especially in terms of storage, distribution, and transportation of sensitive medicines that require specific temperature controls.

The country's complex logistics network can lead to delays in the distribution of drugs.

## 3.Intellectual Property & Patent Issues:

India's 1970 Patents Act allows generic drug manufacturing by circumventing patents, which often leads to conflicts with multinational pharmaceutical companies over patent rights. The global Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement mandates India to grant product patents, affecting the generic drug business.

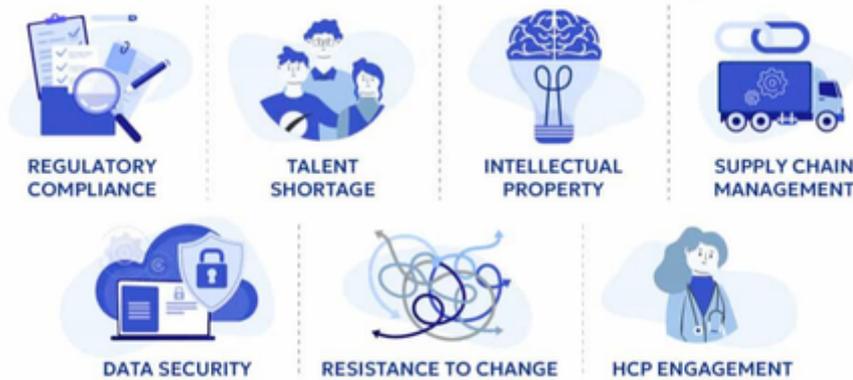
## 4.Raw Material Imports:

India is highly dependent on imports for key raw materials like API, especially from China. This exposes the sector to supply chain disruptions, particularly in the event of geopolitical tensions or trade restrictions.

## 5.Innovation and R&D Challenges:

While large companies like Dr. Reddy's Laboratories and Biocon invest heavily in R&D, smaller firms often struggle with limited access to funding for new drug development, particularly in niche areas such as rare diseases, biologics, and personalized medicine.

## Pharmaceutical Industry Challenges



### 6. Price Control Regulations:

The Indian government has implemented price controls on essential drugs through the National List of Essential Medicines (NLEM) and the Pharmaceuticals Price Control Order (PPCO). While these controls aim to ensure affordability, they can affect the profitability of pharmaceutical companies, especially those involved in the production of patented or specialized drugs and hence reduces R&D future investments.

### 7. Skilled Workforce Shortage:

There is a growing shortage of skilled professionals (due to lack of specialized training) in areas such as research and development, regulatory affairs, and advanced manufacturing. The industry needs a highly skilled workforce to stay competitive.

### 8. Substandard Drugs:

The market for counterfeit drugs in India is leading to health risks and a loss of consumer trust. This affects the domestic

market but also India's reputation as a reliable supplier.

### 9. Rising Competition:

India faces increasing competition from other emerging markets like China, South Korea, and Brazil, which are investing heavily in their pharmaceutical industries. While India is a leader in generics, other countries are becoming more aggressive in producing low-cost generic alternatives, leading to price wars that can impact profit margins for us.

### 10. Sustainability Concerns:

The environmental footprint of pharmaceutical manufacturing, including waste disposal, emissions, and water usage, is a growing concern. There is an increasing push from governments and consumers to adopt green chemistry and more eco-friendly manufacturing processes. Transitioning to these practices can be expensive and logistically challenging for many pharmaceutical companies.

# Recommendations

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The following are the essential priorities organizations must meet for competitiveness and success:

## **1. Targeting the right geographies and products:**

There is potential for companies to increase their footprints in key vaccine segments such as PCV, seasonal flu, and hepatitis, where India's current share is limited.

## **2. Targeting MICs in the near term:**

To succeed in MIC public markets, Indian manufacturers should form partnerships with local pharma companies and encourage advocacy from key opinion leaders. Entry strategies should adapt to each country's dynamics. In MIC private markets, vaccines like HPV, Influenza, Rabies, PCV, and Hexa are attractive opportunities, with India having the expertise, but currently having limited to no market share.

## **3. Aiming for expansion into HICs in the medium to longer term:**

India should focus on high demand vaccines such as influenza, PCV, HPV, meningococcal etc where firms already have capabilities. However, success in HICs will require significant investment in clinical trials, regulatory approvals, robust manufacturing processes, and go-to-market (GTM) capabilities.

## **4. Leveraging partnerships for technology transfers:**

India is currently under-indexed in emerging vaccine technologies such as Multiple Antigen Presenting Systems (MAPS) and Generalized Modules for Membrane Antigens (GMMA), among others. To stay competitive, Indian companies should partner with research institutions and MNCs for technology transfers.

## **5. Building CDMO plays to enter new geographies:**

Indian companies can explore becoming contract manufacturing partners for global players. For instance, Biological E. entered a partnership with Takeda for production of Qdenga, a dengue vaccine, which targeted "India for India" and "India for the World".

## **6. Prioritizing R&D on rare diseases:**

Orphan drugs are often used for the treatment of rare diseases. The orphan drug market is attractive and fast-growing; it's expected to grow at 10% p.a. from 2023 to 2028, with oncology emerging as the most attractive segment (contributing 40% of total revenue in the orphan drugs category). This makes it critical for innovators to build capabilities for the development of orphan drugs within India.

## **7. Ramping up R&D investments:**

There is currently an 18-percentage-point gap between the R&D spending of top Indian companies, as a percentage of revenue, and the R&D investments of the top 10 global pharmaceutical companies. However, Indian companies have robust plans to invest in R&D going forward. Ramping up R&D investments and focusing on large and fast-growing therapeutic areas (TAs) like oncology will drive growth.

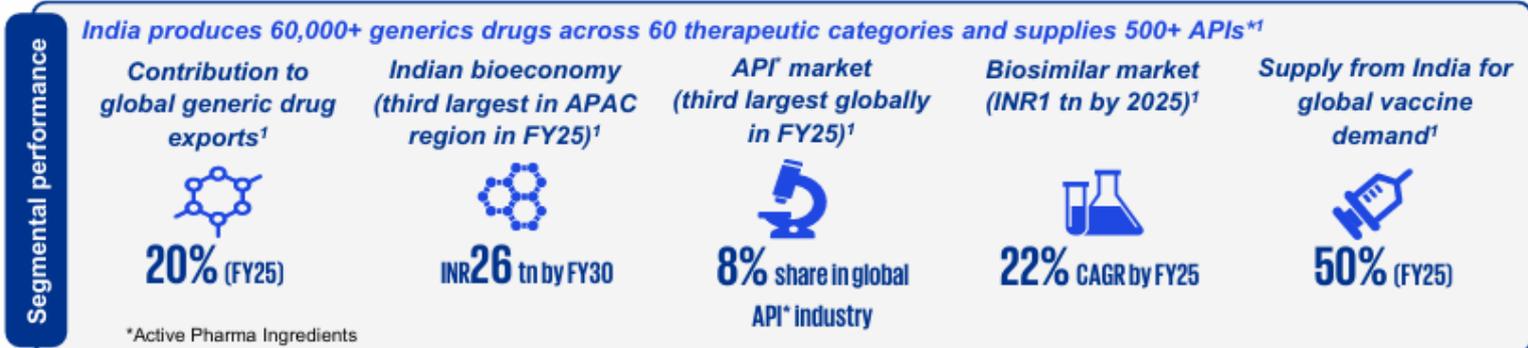
## **8. Developing expertise in new modalities:**

Pharmaceutical technology evolves in three stages, each needing a unique approach. Grade 1 is typically driven by academic research focused on proving clinical value; Grade 2 involves start-ups experimenting with promising technologies; and Grade 3 sees large-scale industry adoption. Indian companies should prioritize emerging technologies in early commercial stages (Grade 2), like cell and gene therapies, which are expected to dominate future drug pipelines.

## **9. Integrating AI/ML in drug discovery:**

Artificial intelligence and machine learning (AI/ML) technologies are transforming drug discovery by improving the efficiency of target identification, compound screening, and lead optimization. As a result, the number of AI-discovered molecules has grown by more than 40% p.a. between 2018 and 2021. It is thus imperative for Indian companies to either invest in building in-house AI capabilities or collaborate with global technology vendors to stay competitive. Indian start-ups are increasingly leveraging AI-based technologies for advanced drug discovery; however, there is tremendous potential to scale this up.

# Pharma Sector 2025 Recap



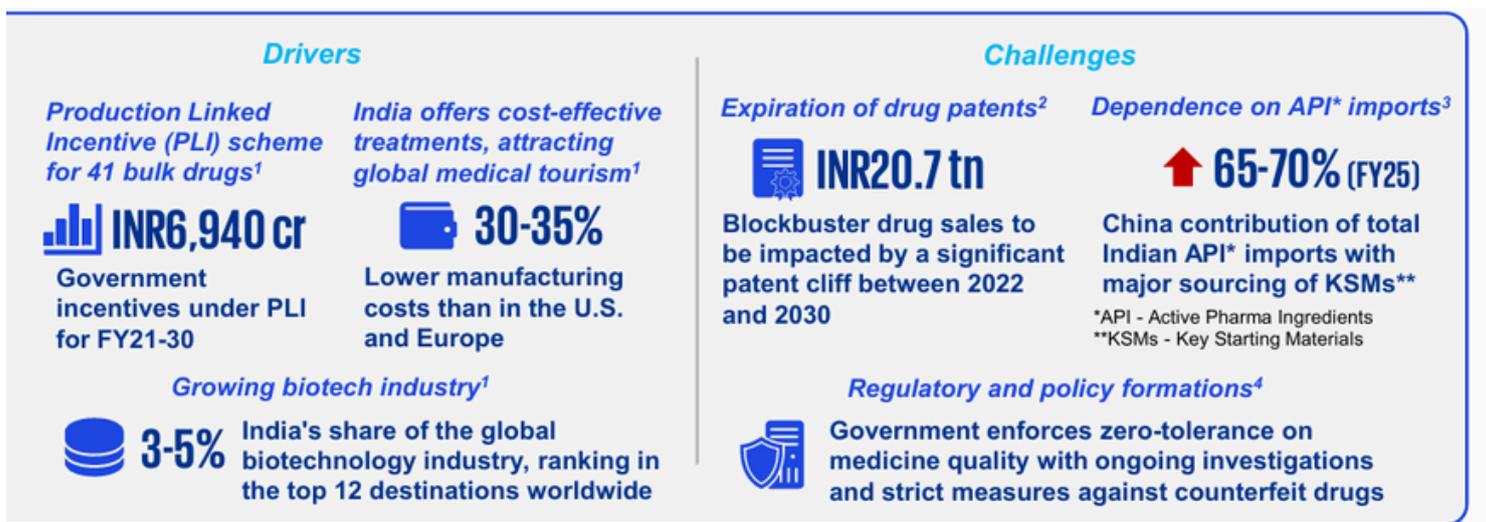
For pharmaceutical industry, 2025 marked a decisive shift as companies began positioning themselves to capitalise on the looming global patent cliff, increasingly looking beyond the traditional generics play. With a \$250 billion opportunity on the horizon, drugmakers signalled strong intent in the booming GLP-1 space, besides joining the biosimilars bandwagon with strategic initiatives to expand and consolidate their presence in the future.

## Industry Leader Quotes

“The year 2025 has been significant as the sector witnessed several novel launches, collaborations, digital progression and structural reforms,” Satish Reddy, Chairman of Dr. Reddy’s Laboratories Limited said. , Speaking for Indian Pharma majors, Sudarshan Jain, Secretary General, Indian Pharmaceutical Alliance (IPA) added that, 2025 has been an inflection point for Indian pharma, signalling the country’s push to move up the value chain.

## R&D Policy Highlights

Experts suggest longstanding capital constraints and undervaluation challenges are easing via the Promotion of Research and Innovation in Pharma-MedTech Sector (PRIP) scheme, launched with ₹5,000 crore outlay—₹4,250 crore for R&D projects supporting ~300 initiatives and catalyzing ₹11,000 crore total investment in new medicines, complex generics, biosimilars, and devices. The scheme prioritizes industry-academia ties at seven NIPER Centres of Excellence (₹700 crore support), with applications opening October 1, 2025, and 111 projects approved by year-end—up to ₹100 crore per later-stage project (35-50% funding), favoring startups/MSMEs in areas like orphan drugs and AMR. Strong industry response spurred licensing deals, novel approvals, and higher-value acquisitions by majors like Dr. Reddy's, alongside complementary PLI scheme (₹40,000+ crore invested) and ₹1 trillion RDI fund.



## Innovation Vision

While policies to support R&D represent a step forward, Satish Reddy of Dr. Reddy's Laboratories emphasized that further impetus in making risk capital more accessible could enable India to evolve from the world's pharmacy into its hub for pharmaceutical innovation.

## GLP-1 Obesity Focus

Among looming patent cliffs, Novo Nordisk's Semaglutide—a GLP-1 receptor agonist for type-2 diabetes and weight management—stands out, with its market expanding nearly tenfold recently, boosted by blockbusters like Mounjaro and Wegovy. Indian firms Cipla and Emcure partnered with Eli Lilly and Novo Nordisk respectively for Tier-2/3 markets, pursuing early-mover advantage. As 20 companies develop compounded versions, regulators anticipate 7–10 marketers launching branded formulations starting March 2026.

## Export Resilience

“Pharma exports showed resilience as blockbusters lose patents, unlocking growth in generics/specialty segments,” said Bhavin Mehta. Small-molecule strength drove \$30B+ exports amid US challenges.

## Trade Agreements

US trade deal remains key, but UK FTA closure, EU engagements, Oman/New Zealand pacts offer new markets. Mehta anticipates 2026 expansion via portfolios and diversification.

## GST Challenges

Q2 disruptions hit Mankind/Glenmark, but recovery expected via patient growth. 18% input duties challenge cash flow; industry seeks capital goods inclusion in refunds.

Experts say 2026 prioritizes scientific excellence, regulatory agility. Next five years critical for policy gains and ambitions.

# Four Strengths of Pharma

India's pharmaceutical industry leverages four core strengths that position it as a global leader in generics and emerging biotech, with the market valued at \$66.66 billion in 2025 and projected to reach \$88.86 billion by 2030 at a 5.92% CAGR.

## Cost Advantage

India maintains a significant cost advantage, producing drugs at 50% lower costs than Western countries, enabling high-volume manufacturing of affordable generics for domestic and export markets. With supplying 40% of U.S. generics and 25% of U.K. medicines while serving over 200 countries.

## Skilled Workforce

A vast pool of skilled scientists and engineers drives innovation, with leading firms like Dr. Reddy's allocating 10-12% of revenue to R&D. This talent underpins advancements in biosimilars and specialty drugs, supporting India's ambition for a \$300 billion bioeconomy by 2030 and dominance in 50% of global vaccines.



## Export Dominance

India leads global exports, capturing 20% of the generic drug market through robust supply chains reaching the U.S., U.K., and Africa. Companies like Sun Pharma, the world's largest generic maker, and Cipla exemplify this strength, bolstered by over 3,000 firms and 10,500 manufacturing units.

## Strong Infrastructure

Well-developed infrastructure, despite distribution challenges, facilitates efficient domestic and international delivery via established supply chains. This network supports scalability for top players like Sun Pharma and Cipla, enabling India to meet surging global demand for affordable healthcare solutions.

## Investments, innovation and healthcare demand impacting growth



Increased government investments<sup>1</sup>



Second largest contributor of global biotech and pharma workforce (FY25)<sup>1</sup>



High utilisation of technology to manufacture pharmaceuticals<sup>1</sup>

20%

Expected increase in the patient pool by FY30 due to rise in population<sup>1</sup>



Emerged as a tourism hub due to cost-effective treatments<sup>1</sup>

### Molecule and Format Breakdown

Small molecules dominate 58.7% revenue as cheap generics. Biologics/biosimilars explode (20% share), with \$12B market via 138 approvals (vs 14 in 2005). Vaccines lead (60% global supply); complex injectables/topicals hit 30% of US ANDAs. India pioneered FDA insulin glargine biosimilar.

### Emerging Modalities Growth

Peptides, inhalation drugs, and nasal sprays expand rapidly, with peptides market doubling to \$2B+ by 2030. Oncology injectables surge 25% YoY as targeted therapies proliferate. Biosimilars for Humira, Stelara unlock \$100B global opportunity—Indian firms like Biocon target 20% share. Large molecules now match small-molecule margins (35-40%) via scale.

### Export Market Segments

Exports reached \$30.5B in FY25 (+9.4%), formulations 75%. US claims 34.5% (\$10B+), Europe 10-12% growth. Overall industry eyes \$55B (2025), \$89B (2030) at 5.92% CAGR. CRDMOs/biosimilars fuel specialty shift.

### Domestic vs Export Balance

Domestic (~\$27B) equals 47% of total revenues; exports drive profitability (25-30% margins vs 18% domestic). Formulations lead both channels—US generics 40% share, domestic chronics 55%. Biosimilars split 60% export/40% domestic.

Rural markets (40% value) grow 10% via better roads, 500+ new distributors. Urban chronic sales rise 9% on premium launches. Tier-2/3 cities contribute 35% growth, led by anti-diabetic (15%) and cardiac (12%)

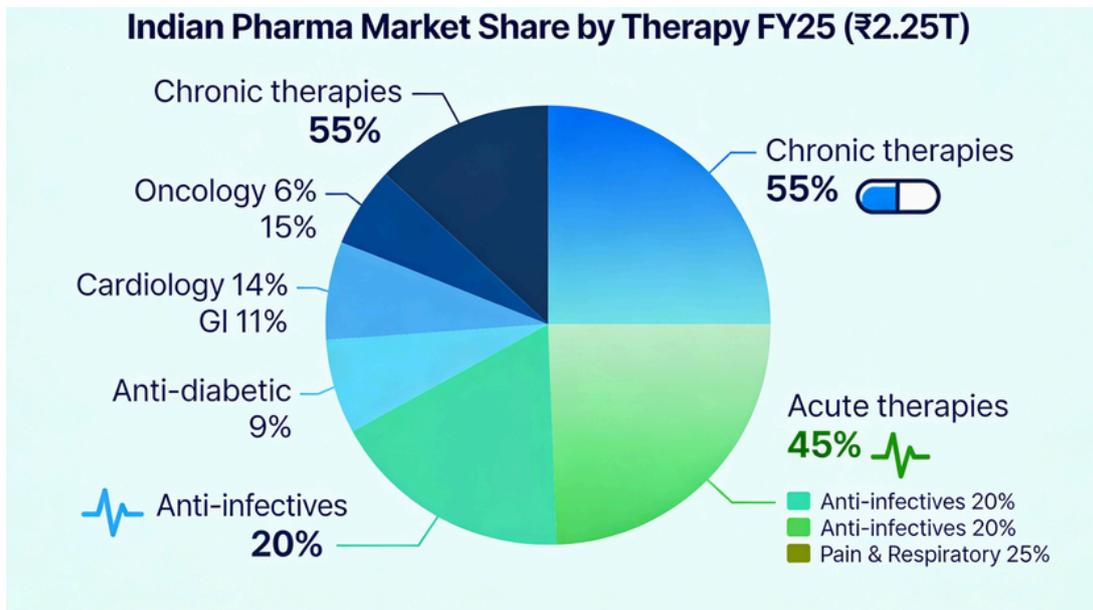
### Key Growth Drivers

Chronics lead via lifestyle shift (200M+ patients); rural penetration adds 20% volumes; launches (tirzepatide, Humira biosimilars) spark 12-15% jumps. Like Sun Pharma (12.4% growth) gain 1-2% share yearly via chronic.

### Top Players Momentum

Sun Pharma grew 12.4% (cardiac leader), Cipla 11% (respiratory), Dr. Reddy's 10% (GLP-1 focus). Top-10 firms hold 35% domestic share (up 2% YoY), gaining via acquisitions (Mankind-Zydus, \$2B deal).

# Market Segments



India's pharma market hit ₹2.25 trillion (\$27B) in FY25, up 8.4%, with chronic therapies now over 55% share(double from a decade ago)as lifestyle diseases surge, across urban and rural areas.

## Overall Market Size

It reached ₹2.25-2.30 trillion in FY25, growing 8.4% year-on-year. Volume rose 1.2% through better rural reach and 500+ new launches. FY26 eyes 7-9% growth as companies target Tier 2-3 cities and digital sales. Chronic segments now drive 55%+ value (up from 25-30% in 2015), while acute therapies slip to 40-45%.

## Chronic Therapy Leadership

Chronic drugs treat lifelong conditions like heart issues, diabetes, and cancer. Cardiology tops with 13-14% share (₹30,000Cr+ sales), growing 10.8-14% amid 100M+ hypertension

cases. GI therapies hold 10-11%, up 10.2% via anti-ulcer demand. Anti-diabetics claim 8-9% at 8-9% growth, boosted by obesity drugs like tirzepatide generics. Oncology races at 12% CAGR through 2030 on targeted therapies. Others shine: CNS (10%), dermatology (11%), hormones (10%), blood products (12%). Cardiac+GI+Diabetes cover 34-37% total value.

## Acute Therapy Dynamics

Acute drugs handle infections, pain, coughs—largest at 19.6% (anti-infectives), up 6.5% volume but flat value from price caps. Pain (analgesics) and respiratory follow at 5-6% growth, tied to seasons. High-volume, low-price model suits rural 60% of sales, but slower pace pushes firms toward steady chronic revenue.

# Conclusion

The Indian pharmaceutical and pharma-tech industry has established itself as a critical pillar of global healthcare, driven by its leadership in generics, vaccines, and cost-efficient manufacturing. As detailed in this report, strong regulatory compliance, a skilled workforce, and large-scale production capabilities have positioned India as the “Pharmacy of the World,” while rising domestic demand and export growth continue to strengthen its economic importance.

The industry is undergoing a structural shift from volume-driven generics toward higher-value segments such as complex generics, biosimilars, specialty drugs, and technology-enabled manufacturing. Case studies of firms like Sun Pharma and Divi’s Laboratories highlight how digitalisation, automation, AI adoption, and backward integration are enhancing operational efficiency and global competitiveness. Government initiatives, including PLI schemes, bulk drug parks, and digital health reforms, are further accelerating this transition.

Despite these strengths, challenges such as dependence on imported APIs, pricing pressures, regulatory scrutiny, and relatively lower R&D intensity remain. Addressing these issues will be essential for sustaining long-term growth.

Overall, the Indian pharma-tech sector stands at an inflection point. With continued focus on innovation, technology adoption, and policy support, India is well positioned to move beyond cost leadership and emerge as a globally competitive hub for innovation-driven pharmaceutical and healthcare solutions.



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