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12th Pharma Pro&Pack Expo 2026 gets underway in Hyderabad, spotlight on pharma machinery innovation

LAXMI YADAV, MUMBAI

12th Pharma Pro&Pack Expo 2026, South India's premier exhibition for pharma processing and packaging machinery, got underway at HITEX Exhibition Centre in Hyderabad from July 9-11. The three day event brought together industry leaders, solution providers, and decision makers under one roof to drive collaboration, unveil new launches, and forge strategic partnerships shaping the future of pharmaceutical manufacturing.

Jointly organised by the Process Plant and Machinery Association of India and Messe München India, the three-day trade fair serves as the go-to platform for manufacturing, packaging, automation, and supply chain solutions in the pharmaceutical sector.

Hyderabad: India's Pharma Capital

Hyderabad's rise as the "Pharma Hub of India" is no accident. With over 2,500 companies powering a USD 1.6 billion industry and exports exceeding USD 500 million, the city has become a magnet for investment in pharmaceuticals, life sciences, and biotechnology. The upcoming Green Pharma City project promises to further accelerate this trajectory, creating new employment opportunities and reinforcing Hyderabad's role as a global pharma powerhouse.

The city is home to industry titans such as Dr. Reddy's Laboratories, Aurobindo Pharma, Bharat Biotech, Laurus Labs, and Hetero, alongside a thriving ecosystem of contract manufacturers, research organisations, and generics producers. For international visitors, Hyderabad

offers unmatched access to decision-makers and buyers, making it the ideal stage for a global trade fair.

Scale and Scope

The 2026 edition of Pharma Pro&Pack Expo is set to be the biggest yet, spanning more than 30,000 sqm of exhibition space and featuring

over 350 exhibitors alongside 350 hosted buyers. With 1,000+ buyer-seller meetings scheduled, the event will showcase 50+ global brands and introduce dedicated pavilions for software solutions, start-ups, and innovation launches which will highlight the sector's digital

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From bulk drugs to biotech: How India's pharmaceutical capital is shaping global supply chains



DR. SANJAY AGRAWAL

INDIA has long been recognized as the "Pharmacy of the World," supplying affordable medicines to more than 200 countries. Over the past three

decades, the country has transformed from being a manufacturer of low-cost generic medicines to becoming a strategic partner in the global healthcare ecosystem. Today, India is no longer just producing Active Pharmaceutical Ingredients (APIs) and bulk drugs- it is rapidly emerging as a hub for biotechnology, biosimilars, vaccine innovation, contract research, and advanced pharmaceutical manufacturing.

At the heart of this transformation lies India's pharmaceutical capital- an interconnected ecosystem spread across states such as Telangana, Gujarat, Maharashtra, Andhra Pradesh, Karnataka, and Himachal Pradesh. Cities like Hyderabad, Ahmedabad, Mumbai, Pune, and Visakhapatnam have become vital contributors to the world's pharmaceutical supply chain.

As global healthcare systems strive to build resilient, diversified, and innovation-driven supply networks after the COVID-19 pandemic, India's pharmaceutical industry is playing a central role in reshaping global medicine manufacturing and distribution.

India's Evolution: From Bulk Drugs to Global Healthcare Leader

The Indian pharmaceutical industry began its journey primarily as a producer of bulk drugs and generic formulations. The Patent Act of 1970 encouraged domestic manufacturing, enabling Indian companies to reverse-engineer medicines and produce affordable alternatives.

Over time, Indian pharmaceutical companies invested heavily in:

- Research & Development

- World-class manufacturing facilities
- Regulatory compliance
- International certifications
- Biotechnology and biologicals

Today, India's pharmaceutical industry is valued at over USD 65 billion, with ambitious targets of crossing USD 130 billion by 2030.

India currently:

- Produces over 60,000 generic brands
- Manufactures approximately 20% of the world's generic medicines
- Supplies nearly 40% of generic medicines used in the United States
- Meets around 60% of global vaccine demand
- Houses one of the largest numbers of USFDA-approved manufacturing

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facilities outside the United States. This remarkable journey has made India indispensable to global healthcare.

The Bulk Drug Foundation

Bulk drugs or Active Pharmaceutical Ingredients (APIs) remain the backbone of pharmaceutical manufacturing.

For decades, Indian manufacturers built expertise in producing:

- Antibiotics
- Cardiovascular drugs
- Anti-diabetic medicines
- Pain management drugs
- Anti-cancer APIs
- Anti-infectives

Industrial clusters in Hyderabad, Visakhapatnam, Ankleshwar, and Baddi became major manufacturing centers supported by:

- Skilled workforce
- Chemical engineering expertise
- Cost-efficient production

- Strong export infrastructure
- Government initiatives such as the Production Linked Incentive (PLI) Scheme and development of Bulk Drug Parks are further strengthening domestic API production while reducing dependency on imports.

Hyderabad: India's Pharmaceutical Capital

Often referred to as the Bulk Drug Capital of India, Hyderabad has evolved into a globally recognized pharmaceutical and biotechnology hub.

The city hosts hundreds of pharmaceutical companies, research organizations, biotechnology firms, and vaccine manufacturers.

Key strengths include:

Strong Manufacturing Base

Hyderabad contributes significantly to India's pharmaceutical exports through large-scale production of APIs, formulations, vaccines, and spe-

cialty medicines.

Biotechnology Ecosystem

Genome Valley, located near Hyderabad, is among India's first organized biotechnology clusters. It houses multinational corporations, startups, research laboratories, and innovation centers working on:

- Biopharmaceuticals
- Vaccines
- Cell therapies
- Gene therapies
- Precision medicine

Research Infrastructure

The region is supported by:

- Contract Research Organizations (CROs)
- Clinical Research Centers
- Universities
- Government research institutes

Together, these create a complete pharmaceutical innovation ecosystem.

The Rise of Biotechnology

The future of healthcare is increasingly moving toward biotechnology.

Unlike conventional pharmaceuticals that rely on chemical synthesis, biotech products are derived from living organisms and include:

- Monoclonal antibodies
- Biosimilars
- Gene therapies
- Cell therapies
- Recombinant proteins
- Vaccines

India has rapidly expanded its biotechnology capabilities through significant investments in infrastructure, research, and manufacturing.

Several Indian companies now produce globally competitive biosimilars, offering affordable alternatives to expensive biologic therapies used in cancer, autoimmune disorders, and chronic diseases.

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India's Vaccine Leadership

One of India's greatest contributions to global healthcare is vaccine manufacturing.

The COVID-19 pandemic highlighted India's ability to rapidly manufacture and distribute vaccines worldwide.

India supplies vaccines for diseases including:

- Polio
- Measles
- Hepatitis
- Diphtheria
- Tetanus
- COVID-19

Indian vaccine manufacturers partner with international organizations such as WHO, UNICEF, and Gavi to supply millions of doses annually, especially to low- and middle-income countries.

This leadership has strengthened India's reputation as a trusted global healthcare partner.

Contract Development and Manufacturing (CDMO)

Global pharmaceutical companies are increasingly outsourcing manufacturing and research to India.

Contract Development and Manufacturing Organizations (CDMOs) in India provide:

- Drug discovery support
- Clinical trial materials
- Process development
- Commercial manufacturing
- Regulatory documentation
- Packaging and distribution

India offers several competitive advantages:

- Lower manufacturing costs
- Highly qualified scientists
- Regulatory expertise
- Large production capacity
- Faster turnaround times

This has made India an attractive destination for pharmaceutical outsourcing.

Building Resilient Global Supply Chains

The COVID-19 pandemic exposed vulnerabilities in global pharmaceutical supply chains, particularly over-dependence on a limited number of manufacturing locations.

Countries and multinational pharmaceutical companies are now seeking:

- Supply chain diversification
- Regional manufacturing hubs
- Trusted regulatory partners
- Reliable API suppliers

- Strategic manufacturing alliances

India has emerged as one of the preferred destinations due to:

- Political stability
- Strong manufacturing ecosystem
- Global regulatory approvals
- Large domestic market
- Export capabilities
- Skilled scientific workforce

Indian pharmaceutical companies are increasingly becoming strategic rather than transactional partners.

Regulatory Excellence

Global pharmaceutical exports demand strict compliance with international quality standards.

Indian manufacturers comply with regulatory authorities including:

- USFDA
- EMA
- MHRA
- WHO-GMP
- TGA
- PMDA

Indian companies continue investing in:

- Digital Quality Management Systems
- Automated manufacturing
- AI-enabled quality monitoring
- Data integrity systems
- Advanced laboratory technologies

This focus on quality has enhanced global confidence in Indian pharmaceutical products.

Digital Transformation in Pharmaceutical Manufacturing

Industry 4.0 technologies are transforming pharmaceutical production.

Modern Indian pharmaceutical facilities increasingly use:

- Artificial Intelligence
- Machine Learning
- Robotics
- IoT-enabled manufacturing
- Predictive maintenance
- Digital twins
- Electronic Batch Records

These technologies improve:

- Productivity
- Regulatory compliance
- Traceability
- Product quality
- Operational efficiency

Digitalization is becoming a competitive advantage for Indian pharmaceutical manufacturers.

Sustainability: The Next Competitive Advantage

Global pharmaceutical buyers now prioritize environmentally responsible manufacturing.

Indian pharmaceutical companies are adopting sustainable practices such as:

- Green chemistry
- Zero Liquid Discharge systems
- Renewable energy integration
- Water recycling
- Waste reduction
- Carbon footprint monitoring

Environmental compliance is increasingly becoming a prerequisite for participation in global pharmaceutical supply chains.

Government Support Driving Growth

The Indian government has introduced several initiatives to strengthen pharmaceutical manufacturing and innovation:

Production Linked Incentive (PLI) Scheme

Encourages domestic production of APIs, key starting materials, and high-value pharmaceutical products.

Bulk Drug Parks

Dedicated industrial parks equipped with common infrastructure to improve manufacturing efficiency.

National Biopharma Mission

Supports innovation in biotechnology, vaccine development, and translational research.

Startup Ecosystem

India's growing biotech startup ecosystem is driving innovation in diagnostics, digital health, drug discovery, and personalized medicine.

These initiatives are accelerating India's transition from manufacturing hub to innovation leader.

Challenges Ahead

Despite impressive growth, several challenges remain:

- Dependence on imported raw materials for certain APIs
- Increasing global regulatory scrutiny
- Rising manufacturing costs
- Environmental compliance requirements
- Talent shortages in specialized biotech fields
- Growing competition from emerging pharmaceutical markets

Addressing these challenges will require continued investments in innovation, infrastructure, skill development, and policy support.

The Road Ahead

The future of India's pharmaceutical industry extends well beyond generic medicines.

Emerging areas of growth include:

- Personalized medicine
- Gene therapy
- Cell therapy
- RNA therapeutics
- Digital therapeutics
- Artificial Intelligence in drug discovery
- Precision manufacturing
- Advanced biologics

India is uniquely positioned to combine affordability with innovation- an advantage few countries possess.

As healthcare becomes increasingly globalized, pharmaceutical supply chains will depend on reliable partners capable of delivering quality, scalability, and scientific excellence. India is steadily becoming that partner.

Conclusion

India's pharmaceutical journey- from manufacturing bulk drugs to leading breakthroughs in biotechnology- reflects one of the most remarkable industrial transformations of the modern era. What began as a cost-driven generic medicine industry has evolved into a sophisticated ecosystem encompassing research, innovation, biologics, vaccines, digital manufacturing, and global regulatory excellence.

The country's pharmaceutical capital continues to fuel this progress by attracting investments, nurturing talent, and fostering collaboration between industry, academia, and government. As the world seeks resilient and diversified healthcare supply chains, India is no longer just a supplier of medicines- it is a strategic architect of the future of global healthcare.

By balancing affordability with innovation, expanding its biotechnology capabilities, and strengthening sustainable manufacturing practices, India is redefining its role in the international pharmaceutical landscape. The transition from bulk drugs to biotech is not merely an industrial evolution; it is a testament to India's growing influence in shaping healthier, more resilient global supply chains for generations to come.

(The author is a leading pharmaceutical consultant and editor-in-chief of IJMToday)