



Unlocking 'India for the World' in MedTech

AUGUST 2025







Boston Consulting Group partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. BCG was the pioneer in business strategy when it was founded in 1963.

Today, we work closely with clients to embrace a transformational approach aimed at benefiting all stakeholders—empowering organizations to grow, build sustainable competitive advantage, and drive positive societal impact.

Our diverse, global teams bring deep industry and functional expertise and a range of perspectives that question the status quo and spark change. BCG delivers solutions through leading-edge management consulting, technology and design, and corporate and digital ventures. We work in a uniquely collaborative model across the firm and throughout all levels of the client organization, fueled by the goal of helping our clients thrive and enabling them to make the world a better place.





Confederation of Indian Industry

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the development of India, partnering Industry, Government and civil society through advisory and consultative processes.

For 130 years, CII has been engaged in shaping India's development journey and works proactively on transforming Indian Industry's engagement in national development. With its extensive network across the country and the world, CII serves as a reference point for Indian industry and the international business community.

In the journey of India's economic resurgence, CII facilitates the multifaceted contributions of the Indian Industry, charting a path towards a prosperous and sustainable future. With this backdrop, CII has identified "Accelerating Competitiveness: Globalisation, Inclusivity, Sustainability, Trust" as its theme for 2025-26, prioritising five key pillars. During the year, CII will align its initiatives to drive strategic action aimed at enhancing India's competitiveness by promoting global engagement, inclusive growth, sustainable practices, and a foundation of trust.

Confederation of Indian Industry

The Mantosh Sondhi Centre 23, Institutional Area, Lodi Road, New Delhi – 110 003 (India) T: 91 11 45771000 | E: info@cii.in, W: www.cii.in

Foreword

The Indian medical devices industry is a sunrise sector poised for a massive transformation and manufacturing unlock. Historically, India has enjoyed a limited share in Global MedTech manufacturing and exports, at less than 2% of the global output. The Indian market has predominantly relied on imports of medical devices for servicing the domestic needs.

There is massive recognition of the opportunity that this sector presents, and hence steps have been taken to unlock the opportunity. Supportive government policies, financial incentives and streamlined regulations coupled with frugal innovations and inherent cost advantage in India have enabled a recent uptick in manufacturing of medical devices in India. Overall production volumes have gone up and share of import has gone down to ~60% (from 80%).

The opportunity, however, is much larger than that realized thus far. Thus far, India has predominantly focused on low-tech medical devices for manufacturing. Global market is growing at a brisk pace, and need for lower cost, high performance products is at a high, with demand growing in India, and in Global South. Frugal innovation and low-cost manufacturing from India can be a massive unlock to fulfil this demand. Even established large organizations are looking at the India Manufacturing opportunity with interest.

Additional efforts will be needed towards realizing this potential, to expand our manufacturing prowess to high-tech medical devices. India will need to take efforts to build a robust supply ecosystem for requisite raw materials for medical grade requirements. Steps will need to be taken to promote technology transfer for global players to set up shop in India. Local innovation would need to be fostered by promoting innovation capabilities, industry-academia collaboration and building infrastructure for low cost prototyping and trials. The solutions would also need to be curated for broader access to MSMEs, and promote at scale, utilization of existing MedTech parks and PLI schemes.

If done right, MedTech manufacturing can take the leap towards being a \sim \$30 Bn sector by FY2030, reduce import dependency to less than 50% and increase India's share to 10–12% in the global market. In this report, we highlight 9 potential themes of solutions that can be considered by the regulators and the industry to navigate this journey.

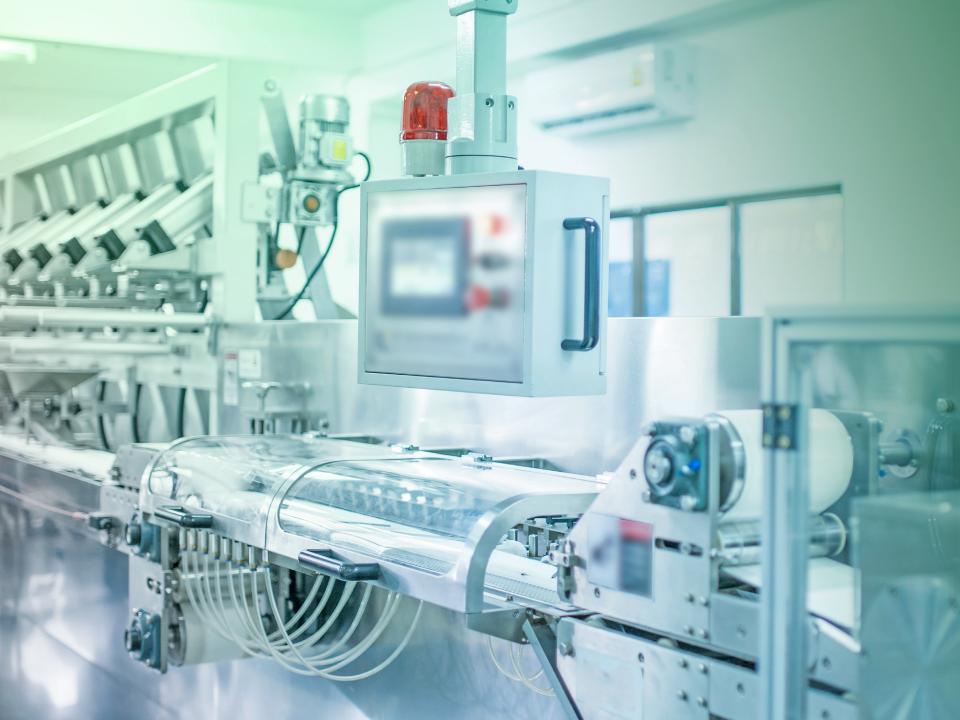
This report can serve as a strategic roadmap to progress towards the vision of 'Viksit Bharat 2047' in MedTech.



Priyanka
Aggarwal
Managing Director and
Senior Partner, BCG



Agarwal
Chairman, CII National Medical
Technology Forum and President and
Managing Director, Terumo India



Executive Summary – I/III

The Indian MedTech industry today is ~\$16 Bn, accounting for only ~2% of the global market valued at ~\$680 Bn

Opportunity in Indian MedTech sector to serve growing domestic and international demand, leverage inherent cost advantages and emerging manufacturing ecosystem is large. With Viksit Bharat 2047, the government has high aspiration for the sector to be one of the pillars in 'Make in India' thrust

- → Aspiration to reduce import dependency to <50%
 </p>
- Increase India's share to 10−12% of the global market

With that ambition, significant progress has been made over last few years to expand local manufacturing

☐ Infrastructure for MedTech manufacturing has been strengthened with 4 MedTech parks being created, AMTZ being most mature

- ☐ Government has launched many financial incentives such as PLI scheme, and state level tax benefits for local manufacturing
- ✓ Initiatives to enhance R&D infrastructure and capacity through government grants and 100% automatic route FDI since 2015 (\$3.9 Bn FDI as of December 2024)
- Up-skilling for MedTech disciplines (skill enhancement programs for technicians and researchers by NIPER)

India has inherent cost competitiveness advantage, and entrepreneurial eco-system boosted by incoming PE/VC investments which have further boosted local manufacturing footprint

- Last few years have seen uptick in domestic manufacturing – with investments from both domestic and MNC players
- Simultaneously, import reliance has reduced from ~80% in FY2022 to ~60% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reliance has reduced from ~80% in FY2024

 Simultaneously, import reduced from ~80% in FY2024

 Sim

Executive Summary – II/III

While there is good momentum on local manufacturing, some challenges remain on the path to manufacturing excellence and becoming a global hub for MedTech

- □ Lack of comprehensive ecosystem for high-end devices – limited foundries for medical grade (cobalt/chromium/steel)
- Regulatory complexity classification categories and approval formats are inconsistent with global markets, additional approvals required for exports
- Lack of skilled manpower availability college/technical curriculum not suited to industry needs of biomedical engineering, device design, regulatory, QA/QC
- Mixed success for MedTech parks and clusters – under utilization due to limited high-end infrastructure and persistent implementation delays
- Z Low PLI scheme value realization skewed towards large players, limited MSME benefits/ participation owing to high incremental revenue threshold

We believe the following 9 initiatives across government schemes, partnerships/collaborations, product R&D and innovation will fuel next phase of manufacturing excellence

- Fine-tune PLI to promote MSME participation
 stepped-down PLI thresholds to make
 participation viable for MSMEs
- Streamline imports aimed at promoting local manufacturing and exports – promote SEZ/EPZ with import duty rationalization and consider duty exemption for critical raw material
- Support creation of raw material ecosystem in India – extend incentives for manufacturing of medical grade critical raw material and enable co-location in a MedTech park
- Attract MNC manufacturing and R&D to India
 structured engagement with global MNCs to
 establish manufacturing hubs and local design
 and R&D centers in India and actively engage
 with global and Indian manufacturers to
 promote JV/CMO engagements for large global
 players to make in India for the world

Executive Summary – III/III

- Unlock the power of MedTech parks fully – promote integration between MedTech parks and research institutes, establish cross-collaboration forums, facilitate global companies to set-up 'Co-innovation labs', establish shared and commercial scale 'Foundries'
- Align regulatory requirements to support quick global approvals streamline regulatory approvals with a single-window approval system and build bridge pathways to support Indian enterprise achieve global regulatory approvals aimed at exports
- Promote public-private collaboration in innovation and manufacturing – to accelerate indigenous design, rapid prototyping and commercialization of critical devices
- Promote global awareness and acceptance of Indian innovation – build an accessible innovation ecosystem through partnerships with global hospitals helping accelerate clinical validation

Enable training and upskilling at-scale
 establish training hubs and hands-on
 workshop centers, integrate advanced skills
 and clinical knowledge with academia

These steps will drive manufacturing, innovation, strengthen user-centric design, and build capacity for India to compete globally in highend MedTech solutions, beyond the inherent competitive position

Table of **Contents**







Industry at a **transformation** stage

Bumps on the road to becoming a **Global Manufacturing Hub**

Next-level unlock for India's leadership in MedTech manufacturing

26–31

32–35

10-25



Industry at a **transformation** stage \nearrow

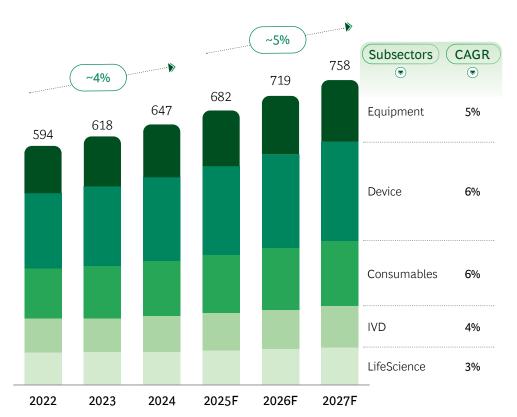


MedTech market globally is large, currently ~\$680 Bn and growing at ~5%



~5% growth across key market segments expected until 2027

Global MedTech Sales (\$ Bn)







Ageing population, i.e., higher prevalence of chronic diseases increase overall demand on health care solutions



Higher lifestyle diseases, e.g., increased obesity/CVD/diabetes, driving new patient volumes



Decentralization of care, i.e., treatment moving out of hospitals, fueling use of technology in alternative settings and new locations



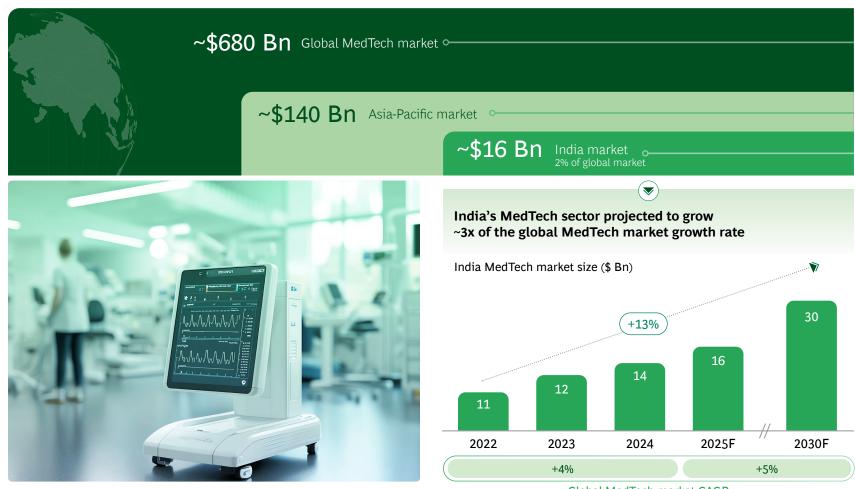
Growing focus and penetration of HC in Emerging markets – increasing use of both basic and advanced health care solutions in recent years post Covid-19

Note: Market segmentation and size according to BCG market definition. Company or report market sizes may differ depending on applied market definition **Source:** Grand View Research; BCG analysis

India is currently the 4th largest MedTech market in Asia, growing faster than industry



India's share in global MedTech market — FY'25

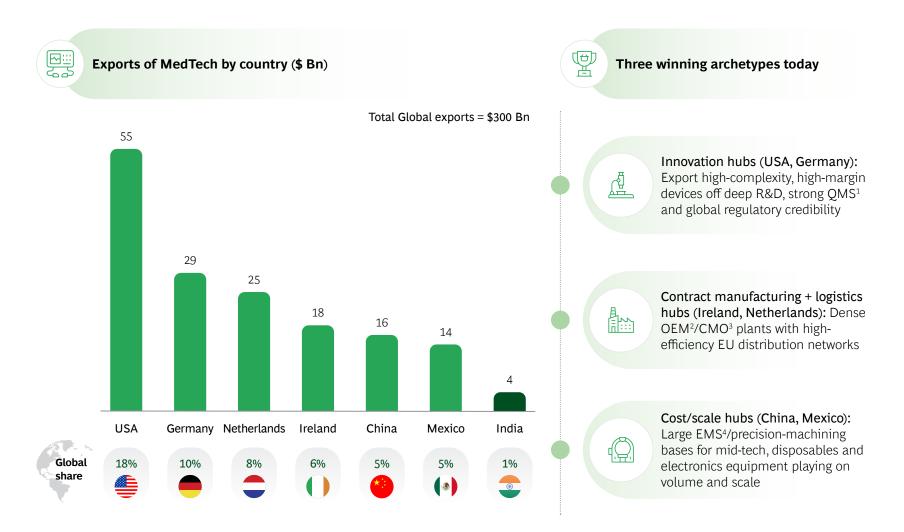


Global MedTech market CAGR

Source: Globe Newswire; Precedence Research; Market Reports; FY-30 Projected as per MoH Press Release

Unlocking 'India for the World' in MedTech

India's share in global MedTech manufacturing and exports has been historically small, at less than 2%



^{1.} Quality Management System; 2. Original Equipment Manufacturer; 3. Contract Manufacturing Organization; 4. Electronics Manufacturing Services Note: Export market considered for HS-4 headings of 2018, 2019, 2021, and 2022 Source: UN Comtrade; Trend Economy; Observatory of Economic complexity; BCG analysis





There has been a concerted effort to advance manufacturing in Indian MedTech sector



Aspiration of Indian MedTech: Advance manufacturing and reduce import dependence

- ¬ Accelerate India's MedTech market to \$30 Bn by 2030 and capture 10−12% of global market share by 2047
- ¬ Reduce import dependence to <50% through domestic manufacturing and innovation
 </p>
- ¬ Expand India's market share in Global exports by 10−12% by 2030

Multiple initiatives have been taken towards this aspiration

MedTech Infrastructure

- ¬ Development of MedTech Parks in Andhra Pradesh, Tamil Nadu, Himachal Pradesh, Madhya Pradesh, and Uttar Pradesh
- NABL-accredited labs and common testing centers

Financial Incentives: PLI¹ Scheme

- ¬ Outlay of ~\$410 Mn in 7 years

Innovation and Investment: PRIP² and FDI³

- ¬ Government grant for promoting innovation
- 7 100% automatic route FDI since 2015
- 7 ~\$3.9 Bn FDI as of December 2024

Upskilling the Nation

- □ Setup of NIPERs⁴ for MedTech training
- 7 Targeted skill enhancement programs for technicians and researchers

Key enablers of cost-competitiveness, entrepreneurial ecosystem and investments

Cost-competitiveness

- 7 India has substantial cost advantage in terms of MedTech manufacturing
- > Land, labor, utilities, regulatory cost

Entrepreneurial ecosystem

¬ India promotes entrepreneurial skill-sets and environment to boost frugal innovations

Private Investments

¬ Backed by multiple PE/VC investments focused on manufacturing

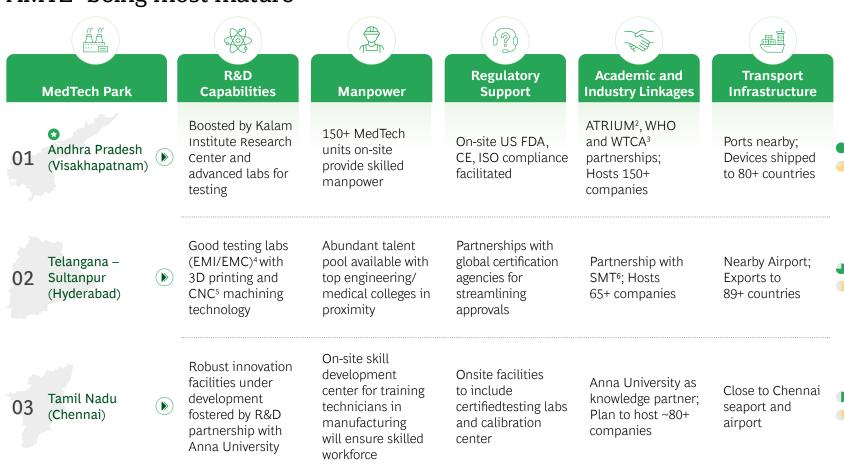


^{1.} Production-Linked Incentives; 2. Promotion of Research and Innovation in Pharma MedTech; 3. Foreign Direct Investment;

Source: Department of Pharmaceuticals; Medical Technology Association of India; Press release; Secondary Research; BCG analysis

^{4.} National Institute of Pharmaceutical Education and Research

MedTech Parks | MedTech parks have been built with strong infrastructure; AMTZ¹ being most mature



*Multiple New MedTech parks are underway to boost MedTech manufacturing in India, i.e., Gujarat, Madhya Pradesh, Chhattisgarh

Deep-dive ahead;

Utilization: No utilization 100% utilization

- 1. Andhra Pradesh MedTech Zone; 2. Assistive Technology Réhabilitations Instrumentation Centre; 3. World Trade Centers Association;
- 4. Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC); 5. Computer Numerical Control; 6. Sahajanand Medical Technologies Source: Department of Pharmaceuticals; Secondary Research; BCG analysis

Maturity Index: • Fully mature • Advanced • Developing



AMTZ Example | AMTZ has catalyzed domestic manufacturing in India



- 7 Position India as a global MedTech hub through strong public-private collaboration and shared infrastructure
- → Develop replicable MedTech cluster models for other states (AMTZ1, 2016; 270-acre built in 342 days)



- → Created integrated MedTech infrastructure with shared R&D, testing, and advanced manufacturing facilities
- ☐ Introduced targeted MSME² incentives including a 15% investment subsidy on fixed capital
- Power subsidy of ₹1 per unit reimbursement for a 5-year period to reduce costs
- ¬ Single Desk system enabling time-bound approvals for faster project execution and setup
- ¬ Rolled out TS-iPASS³ single-window mechanism with 15-day clearance for all mega projects
- Plug-and-play ecosystem hosting 150+ firms, with Bio-Valley incubator for diagnostics startups



- Annual turnover > ₹9,000 Cr: thousands of jobs created
- ☐ Enabled Covid-19 responses through rapid scale-up: ~10 Lac RT-PCR kits/day, ~250 ventilators and ~500 oxygen concentrators per day
- → Industrial ecosystem through attracting firms like Molbio, Trivitron, Phoenix, Enliva, Amphenol
- ∀ Future target: 50% Made-in-India device usage in Indian hospitals by 2032

AMTZ¹ is a successful blueprint of how focused policy, infrastructure, and innovation ecosystems can transform India from being a MedTech importer into a global hub

1. Andhra Pradesh MedTech Zone; 2. Micro, Small, Medium Enterprises; 3. Telangana State Industrial Project Approval and Self-Certification System Source: Survey Department of Pharmaceuticals

Unlocking 'India for the World' in MedTech 17

Incentives | State incentives fueling India's MedTech growth

Rajasthan

- ¬ 100% exemption on stamp duty and electricity
- □ 100% land tax waiver for 7 years
- ¬ 1.2–2% turnover-linked rebate for 10 years
- ¬ RajNivesh one-stop portal for time-bound clearances

Gujarat

- ¬ 100% stamp-duty reimbursement on land/lease Electricity-duty exemption for 5 years
- ¬ 25% capex subsidy¹ up to ₹200 Cr
- ☐ IFP² single-window online platform for approvals

Maharashtra

- Patent reimbursement: Up to ₹2 Lac (India) and up to ₹10 Lac (Foreign)
- Power subsidy: ₹0.5–1 per unit for 3 years

Karnataka

- ¬ Bonus subsidy: +10% if the R&D center is co-located with the plant
- 7 Faster approvals: Affidavit-based system and single-window clearance under NIP5

Haryana

- ¬ 100% electricity duty; 50−100% stamp-duty refund (land)
- ¬ MSME⁴ term loans: 5–8% interest rebate for 7 years
- ☐ Invest Haryana: single-window deemed clearances

Uttar Pradesh

- Patent fees reimbursement: 100% domestic and 50% international
- ☐ Interest subsidy of 50% p. a. on quality/R&D loans
- ¬ Nivesh Mitra portal for fast-track clearances

Telangana

- MSMEs4: 15% investment subsidy on fixed capital
- Power: ₹1/unit reimbursement for 5 years
- ¬ Single Desk: time-bound approvals
- ¬ TS-iPASS⁶: single-window; 15-day approvals for mega projects

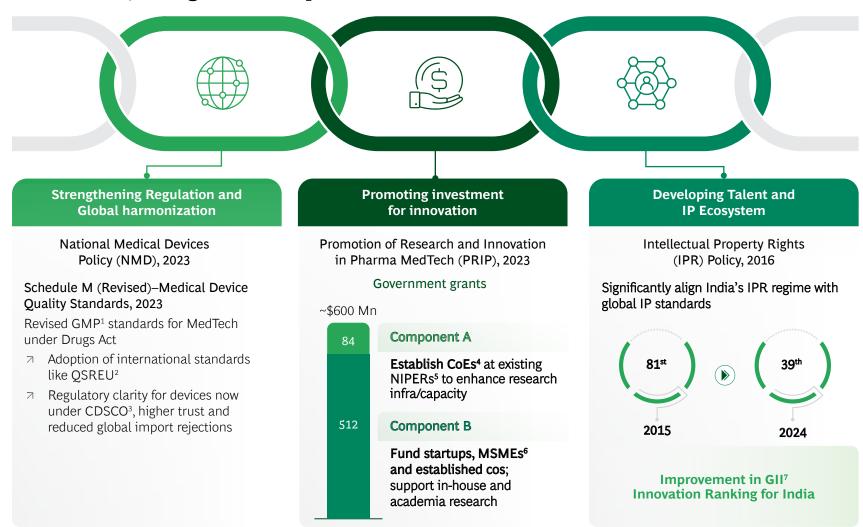
Tamil Nadu

- ¬ 1/3 subsidy incentives for companies: Fixedcapital, Flexible (staged) capital or Turnover-based
- ¬ TN Single-Window portal + LS⁷ PromotionCell for fast-track clearances
- ¬ State-affiliated testing labs for export certification
- 1. For biotech/biomedical devices and units; 2. Investor Facilitation Portal; 3. Karnataka Industrial Areas Development Board; 4. Micro, Small, Medium Enterprises;
- 5. New Industrial Policy; 6. Telangana State Industrial Project Approval and Self-Certification System; 7. Life Sciences

Note: The incentives are non-exhaustive for the select states (those with current and planned MedTech parks)

Source: Survey Department of Pharmaceuticals

Government Initiatives | Progressive policies are unlocking growth, innovation, and global competitiveness in Indian MedTech



^{1.} Good Manufacturing Practice; 2. Quality System Regulation European Union; 3. Central Drugs Standard Control Organization; 4. Centers of Excellence; 5. National Institutes of Pharmaceutical Education and Research; 6. Micro, Small, Medium Enterprises; 7. Global Innovation Index Source: PIB Press Release; GII Rankings; Secondary Research

India's Cost Advantage | India offers substantial cost advantage for local MedTech manufacturing: illustration for mid-sized plant (~5,000 sq. m)

Indicative Mexico China USA **Cost Component** India Europe Land Cost \$0.1-0.3 Mn: \$0.5–1 Mn \$0.1-0.8 Mn \$0.2-0.4 Mn; \$1.5-2.3 Mn, (5,000 sq. m)one-time purchase national average national average vary widely by state average across EU-5 Construction (50,000 sq. ft ● \$1–1.3 Mn ● \$1–2 Mn \$3.5-6 Mn \$4-7 Mn \$5-7 Mn CE facility) \$2,000-3,000 Labor-Unskilled/ for entry-level Semi-skilled \$150-350 \$450-750 \$715-1,040 \$2,500-3,000 manufacturing (per month) workers \$5,000-8,000/ \$2,300-4,500 Labor-Skilled/ (Engineer) month, strong Engineer \$6,000-8,000 \$300-600 \$1,500-3,000 \$1,200-2,100 labor laws add (per month) (Technician) indirect costs \$0.15-0.25/kWh \$0.10-0.13/ Utilities -(Industrial rates kWh-heavily state-~\$0.09 kWh \$0.12-0.18/kWh \$0.08-0.1/kWh Electricity are high due to regulated energy taxes) Utilities -\$0.4-0.8/m3 for $1-3/m^3$ \$2.2-5.5 including \$0.5-0.8/m³ \$0.8-1.2/m³ industrial water Water on average wastewater fees Moderate fees-510 (K) fee EU MDR compliance Product \$12-60/ \$1,000-7,000 osts \$250,000-~\$24,335 (\$6,084 Regulatory \$20,000-60,000 device (CDSCO) depending on for small business) 700,000 Fees device class Low Med High Cost

Note: All costs are weighted averages and widely vary from state to state and regions within a country **Source:** Secondary Research; Expert interviews; BCG analysis



Evolving ecosystem | MedTech ecosystem has emerged with frugal innovations across full spectrum of Medical devices

Diagnosis and Detection

¬ Chest X-ray AI for TB screening

- ¬ Pocket ECG for rural heart diagnostics
- → Handheld oral cancer detection tool

Treatment and Intervention

- Minimally invasive orthopedic surgery via robotic system
- ¬ Transcatheter valve replacement

Post Operation - Recovery and Rehabilitation

- ¬ Robotic exoskeleton for stroke rehabilitation
- □ Al gait trainer for neuro recovery
- ¬ Lightweight wheelchair for independent mobility
- ¬ Smart brace for guided home physiotherapy

Wearable and **Assistive Technologies**

- ¬ Bone conduction aid for hearing loss
- ¬ Smart walker for elderly fall prevention
- ¬ Tablet-based cognitive screening for dementia
- ¬ Low-cost assistive tech for visual impairment



Startup **Stories**

Select

Use Cases

aure.ai

Al-powered chest X-ray analysis used in 139+ facilities, including TB programs

SS innovations &

Multi-specialty surgical robotic system with telesurgery/tele-proctoring approvals

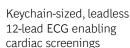
Bionic Yantra 👶

REARS exoskeleton enables mobility (1/3rd reduction in Rehabilitation time)

We hear 📛

Wearable hearing device bypassing damaged eardrum

Agatsa 🚝





Developed Myval TAVR, India's first local transcatheter valve system

Genrobotics

Al-driven robotic device for gait training in stroke/ Parkinson's recover

Maitra 🚴

Digital tool for neuro cognitive assessments

Patient & Clinician

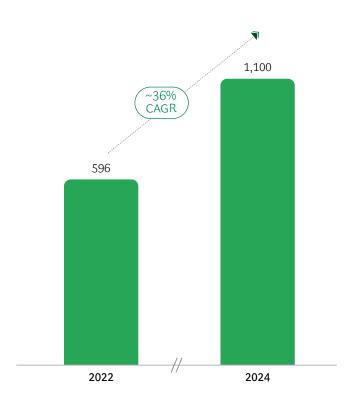
Hospitals Recovery and Rehabilitation Center

Source: Department of Pharmaceuticals-Government of India Annual Report 2024-2025; PBI Press Release; Industry Reports; Secondary Research; BCG analysis

Unlocking 'India for the World' in MedTech 21

PE/VC Investments | PE/VC investments have ramped up to support efforts to enhance manufacturing in India







Notable PE¹/VC² MedTech deals

Company	Investor	Purpose of seeking investment	Deal size (\$ Mn)
Healthium MedTech	KKR	Accelerate global expansion	840
Sahajanand Medical Technologies	Samara Capital	Global expansion and build next- generation cardiovascular solutions	150
Biorad Medisys	Kotak Strategic Situations Fund	Set up new manufacturing plant	48
Appasamy Associates	Warburg Pincus	Product innovation and export market growth	300
Futura Surgicare	Jashvik Capital	Build innovative devices and consumables	25
S3V Vascular Technologies	AM Naik and Madhusudan Kela	To set up manufacturing facility for neurovascular devices	36

Deal momentum with manufacturing as focus activity in India MedTech sector

^{1.} Private Equity; **2.** Venture Capital **Source:** Pitchbook-2023; Secondary Research; BCG analysis

MNCs are investing to leverage the Indian advantage on cost and technology

¬ Committed ~\$916 Mn for local manufacturing and R&D expansion till FY29

→ 4 local production lines (PET-CT, CT, MR coils, X-ray) - Raise local production from current 40–45% to 70% by 2030

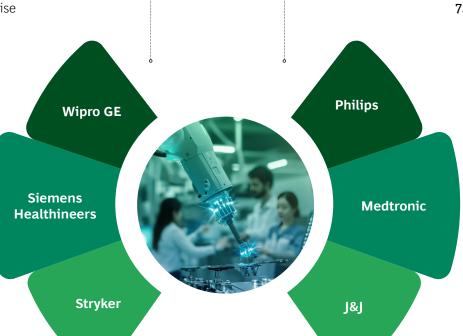
□ Exporting to 70+ countries
 □

¬ Investment of ~\$148 Mn
for Bengaluru innovation
hub under "Strategy 2025"

 Expands Make in India footprint with local manufacturing of Multix Impact E Digital Radiography X-ray System along with C-Arms, CT and MRI System

 ¬ Announced opening of 150,000 sq. ft R&D facility at International Tech park, Gurugram

→ Expanded prototype and testing facility in India integrates cutting-edge infrastructure, enhanced microbiology capabilities, and a talented team to drive innovation.



¬ ~\$12 Mn investment for Health

Care Innovation Centre

¬ Expanded Chakan factory by
7,200 sq. m; MR coils, ultrasound,
mobile surgery systems

□ Launch of Affiniti ultrasound device

Announced investment of ~\$481 Mn by 2025 to expand the Hyderabad Innovation Centre making it largest R&D hub outside the US

Partnered with Philips to train over 300 clinicians in imaging techniques in its commitment to clinician upskilling

 ¬ With the Indian ophthalmic market valued at ~\$1,700 Mn in 2024, J&J vision is exploring local manufacturing to support access and distribution in India

¬ They are preparing for locally relevant innovations and clinical trials tailored to India

Source: Industry reports; Annual reports; Global MedTech interviews; BCG analysis

Indian companies and manufacturers continue to invest



44 high-end devices (CT, MRI, LINAC, ultrasound, mammography) approved under the PLI¹ scheme for domestic production

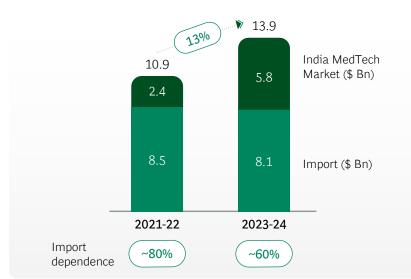


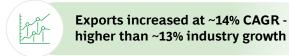
Meril: \$18 Mn capex to make new devices², SMT³: \$10.4 Mn project to manufacturing 1 Mn+ stents and 2 Mn+ balloon catheters, Trivitron: new radiation-protection gloves plant to manufacturing ~2 Lac units annually

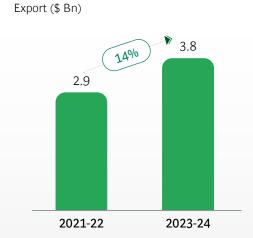
1. Production-Linked Incentives; 2. Includes orthopedic implants, coronary stents/valves and endo-surgery products; 3. Sahajanand Medical Technologies Source: Industry reports; Secondary Research; BCG analysis

Significant uptick in domestic manufacturing and reduction in import reliance











Source: Department of Pharmaceuticals - Government of India Annual Report 2024-2025; PBI Press Release; Industry Reports; Secondary Research; BCG analysis

Unlocking 'India for the World' in MedTech

Bumps on the road to becoming a Global Manufacturing Hub







There are roadblocks to overcome as India progresses toward its vision of becoming a Global manufacturing hub



Lack of comprehensive ecosystem for high-end devices



India lacks a comprehensive ecosystem of upstream technologies to support manufacturing of high-end equipment, leading to heavy import reliance. Import duty levies on these raw materials reduce export attractiveness, e.g., there are limited foundries for medical grade (cobalt/chromium/steel); limited play in rare-earth and high-field MRI magnets amongst others



Regulatory uncertainty



- Z Classification categories, submission formats and requirements for India vary as compared with USFDA1/EU MDR2
- Limited streamlining of requirements increases burden of manufacturers for additional approvals for exports



Lack of skilled manpower availability



- Skilled talent remains a critical bottleneck. This includes biomedical engineering, device design, regulatory, QA/QC, especially in emerging high-tech domains (AI, advanced imaging, etc.)
- College and technical curriculum are not alligned with industry needs



Mixed success for MedTech parks and clusters



- MedTech park utilization remains low, with mature clusters such as AMTZ³ operating at 60–70% occupancy, Telangana at 40–50%, and Tamil Nadu at just 30–40%
- Limited high-end infrastructure and persistent implementation delays continue to constrain the potential of these clusters



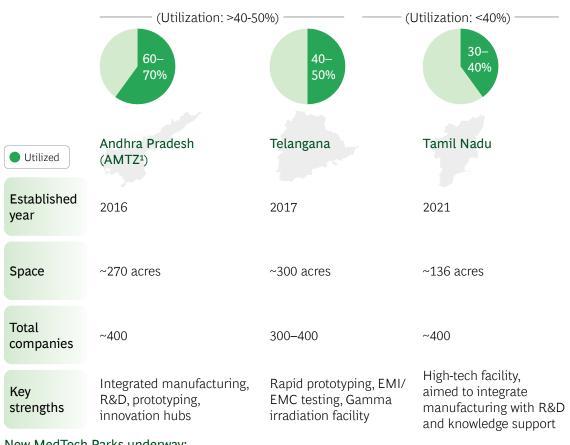
Low PLI scheme value realization



- ☐ Underutilization of PLI scheme, with ~\$15 Mn disbursed from an outlay of ~\$390 Mn (FY22-27)
- Majorly skewed towards large players, limited MSME4 benefits/participation under PLI owing to high incremental revenue threshold—undermining goal of creating broadbased MedTech ecosystem

^{1.} United States Food and Drug Administration; 2. European Union's Medical Device Regulation; 3. Andhra Pradesh MedTech Zone Limited; 4. Micro, Small, and Medium Enterprises **Source:** Secondary Research; CDSCO website and circulars; BCG analysis

Indian MedTech parks have headroom to improve overall utilization



New MedTech Parks underway:

Gujarat being commissioned by late 2025 with investment of ~\$100-150 Mn underway, set to host ~400 MedTech companies

Madhya Pradesh announced its MedTech park in 2024, allotting land to over 30 MedTech companies with proposed investments of around ~\$200 Mn and Chhattisgarh announced Pharma and MedTech hub in December 2024



Challenges on realizing full-potential of MedTech parks

- Most parks need to strengthen infrastructure to reach global standards; and attract ecosystem players, except mature ones like AMTZ¹ (MediValley, BioValley) and Telangana (T-Hub², PPP with government, IIIT-H3, ISB4, NALSAR5, private partners)
- Funding models differ, state-only parks (Gujarat, Telangana) are less attractive, while blended parks (AMTZ¹, Tamil Nadu) benefit from both central and state funding
- Lack of skilled executioners, low talent-building efforts and innovation infrastructure, impacting full potential realization of parks
- Unclear marketing and business strategy to expand to additional MedTech companies including global MedTech

29

Unlocking 'India for the World' in MedTech

^{1.} Andhra Pradesh MedTech Zone; 2. International Institute of Information Technology, Hyderabad; 3. Technology Hub; 4. Indian School of Business;

^{5.} National Academy of Legal Studies and Research

Source: Department of Pharmaceuticals - Government of India Annual Report 2024-2025; PBI Press Release; Industry Reports; Secondary Research; BCG analysis

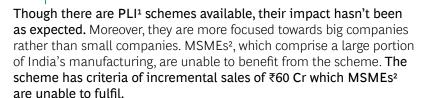


Production-Linked Incentives (PLI) skewed towards large firms, limiting MSME participation



Incremental sales uplift threshold under PLI¹ Scheme for Category A3 and Category B4

Scheme tenure: 2021 to 2028	Threshold minimum incremental sales of manufactured goods	
FY	Category A ³ products	Category B ⁴ products
Year 1	₹60 Cr	₹20 Cr
Year 2	₹120 Cr	₹22 Cr
Year 3	₹180 Cr	₹24 Cr
Year 4	₹230 Cr	₹27 Cr
Year 5	₹280 Cr	₹29 Cr



— Leading executive, Indian MedTech Company





PLI's1 greenfield-only requirement



The high upfront capex for new plants makes participation largely out of reach and discourages smaller players



High sales thresholds in PLI1 schemes constrain participation:

Even when MSMEs² secure approvals, the steep incremental sales criteria (especially for Category A's³ ₹60 Cr in Year 1 rising to ₹280 Cr in Year 5, make it difficult for smaller players to keep pace as MSME2 typically have an overall turnover of only ₹100-500 Cr

^{1.} Production-linked incentives; 2. Micro, Small, Medium Enterprises; 3. Category A consists of Large, high-capex advanced equipments like CT, MRI, LINAC etc;

^{4.} Category B consists of Smaller, less-cost intensive devices like X-ray tube, Anesthesia syringes and needles, Cyclotrons etc.; Source: Department of Pharmaceuticals Report; Ministry of Finance Report; Secondary Research









Next-level unlock for India's leadership in MedTech manufacturing





9-point agenda for India to emerge as a global manufacturing hub (I/II)

Solution Themes





Fine-tune PLI to promote MSME participation

7 Introduce 'step-down thresholds' under PLI schemes and increase awareness to ensure that MSMEs and smaller companies also qualify for incentive disbursements in subsequent years, rather than being limited to just gaining approvals under the PLI policy



Streamline imports aimed at exports and promote manufacturing

- 7 Promote SEZ¹/EPZ² with import duty rationalization on import of raw materials for export oriented ventures
- Z Consider duty exemption for critical raw materials such as biomedical-grade plastics, special alloys, electronics, sensors, etc. aimed at exports



Support creation of raw material ecosystem in India

Extend incentives for manufacturing of medical grade critical raw material (e.g. rare earth magnets, foundries of medical grade Co3/Cr4) and enable co-location in a MedTech park



- Create structured engagement with global MNCs to establish manufacturing hubs and local design and R&D centers in India by offering faster/single-window clearances; special concessions in the MedTech parks; access to clinical trials in India; and fast-track approvals for launch of their global portfolio in India
- Actively engage with global and Indian manufacturers to promote IV5/CMO6 engagements for large global players to make in India for the world, while addressing common concerns on IP protection and talent

^{1.} Special Economic Zone; 2. Export Processing Zone; 3. Cobalt; 4. Chromium; 5. Joint Venture; 6. Contract Manufacturing organization Source: BCG proprietary knowledge; Industry experts; Market Reports; Department of Pharmaceuticals Reports; Secondary Research



9-point agenda for India to emerge as a global manufacturing hub (II/II)

Solution Themes



Unlock the power of MedTech parks fully



Align regulatory requirements to support quick global approvals



Promote public-private collaboration in innovation and manufacturing



Promote global awareness and acceptance of Indian innovation



Enable training and upskilling

Initiatives

- Promote integration between MedTech parks and research institutes for enable prototyping and pilot testing
- Establish cross-park collaboration forums (as parks currently work independently) to drive knowledge sharing and joint advancement with global partners
- Facilitate global companies to set-up 'Co-innovation labs' within MedTech parks, engaging as OEMs and R&D partners, to accelerate technology transfer, deepen product R&D and move beyond buyer–seller relationships
- Build bridge pathways to support Indian enterprises achieve global regulatory approvals aimed at exports, on back of their domestic approvals and quality assurance
- Streamline regulatory approvals with a single-window approval system along with 'preliminary regulatory assessment feedback' to simplify the existing 7-step approval process
- Promote collaboration between **public R&D institutes and Indian manufacturers and industry** to accelerate indigenous design, rapid prototyping and commercialization of critical devices through creating structured forums and information exchanges
- Build an accessible **innovation ecosystem** through partnerships with global hospitals helping accelerate **clinical validation** for Indian MedTech innovations and drive user centric design
- □ Establish training hubs and hands-on workshop centers for clinical education
- ☐ Integrate advanced skills and clinical knowledge with academia to build skilled manpower for specialized clinical applications, ensuring large-scale education in advanced medical procedures
- Launch 'Hospital-Engineer fellowship' programs, that provide biomedical skill-based training inside tertiary hospitals for 6-9 months, addressing unmet needs and offering hands-on MedTech exposure

Source: BCG proprietary knowledge; Industry experts; Market Reports; Department of Pharmaceuticals Reports; Secondary Research

Unlocking 'India for the World' in MedTech



Note to the Reader

ABOUT THE AUTHORS



Priyanka AggarwalManaging Director and
Senior Partner, BCG



Kshitij VijayvargiyaManaging Director
and Partner, BCG



Garima MalhotraAssociate Director,
BCG



Chandni Shah Consultant, BCG

ACKNOWLEDGMENTS

The authors thank and acknowledge the support provided by Shivangi Ojha, Aayushi Shrivastava from Consulting team and Manik Nagpal from Vantage team in preparation of this report

Marketing Process: Nidhi Yadav, Bhumika Gupta, Simran Wadhwa, and Hazel Menezes

Design and Production: Saroj Singh, Subhradeep Basu, Abbasali Asamdi, Soumya Garg, Nihar Mehta, and Kshama Sawant

FOR FURTHER CONTACT

If you would like to discuss the themes and content of this report, please contact:

BCG

Priyanka Aggarwal

Managing Director and Senior Partner BCG, Singapore Aggarwal.Priyanka@bcg.com

Garima Malhotra

Associate Director BCG, New Delhi Malhotra.Garima@bcg.com

Kshitij Vijayvargiya

Managing Director and Partner BCG, New Delhi Vijayvargiya.Kshitij@bcg.com

Chandni Shah

Consultant BCG, Bengaluru Shah.Chandni@bcg.com

CII

Amita Sarkar

Deputy Director General Confederation of Indian Industry Amita.Sarkar@cii.in

Abhishek Thakur

Executive Confederation of Indian Industry Abhishek.Thakur@cii.in

Mamta Sharma

Director Confederation of Indian Industry Mamta.Sharma@cii.in © Boston Consulting Group 2025. All rights reserved.

For information or permission to reprint, please contact BCG at:

E-mail: permissions@bcg.com

To find the latest BCG content and register to receive e-alerts on this topic or others, please visit bcg.com.

Follow Boston Consulting Group on LinkedIn, Facebook and X (formerly Twitter).

Copyright © 2025 Confederation of Indian Industry (CII). All rights reserved.

No part of this publication may be reproduced, stored in, or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording or otherwise), in part or full in any manner whatsoever, or translated into any language, without the prior written permission of the copyright owner. CII has made every effort to ensure the accuracy of the information and material presented in this document. Nonetheless, all information, estimates and opinions contained in this publication are subject to change without notice, and do not constitute professional advice in any manner. Neither CII nor any of its office bearers or analysts or employees accept or assume any responsibility or liability in respect of the information provided herein. However, any discrepancy, error, etc. found in this publication may please be brought to the notice of CII for appropriate correction.

Published by Confederation of Indian Industry (CII), The Mantosh Sondhi Centre; 23, Institutional Area, Lodi Road, New Delhi 110003, India

Tel: +91 11 45771000 Email: info@cii.in Web: www.cii.in









