

OPPI

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Organisation of Pharmaceutical Producers of India

Pharma GCCs: Powering India's next growth frontier

Deepening global mandates, innovation capability and national value

November 2026

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The better the answer.
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FOREWORD



Anil Matai

Director, Organisation of Pharmaceutical Producers of India (OPPI)

India's pharmaceutical industry has long played an important role in global healthcare. The opportunity now is to build on that strength and expand India's contribution from manufacturing and scale to science, innovation and the creation of new healthcare solutions for the world.

Pharma Global Capability Centers (GCCs) can be important catalysts in this journey. India-based teams are already taking on increasingly sophisticated responsibilities across the value chain, combining scientific expertise, digital and AI capabilities and deep domain knowledge. As these mandates deepen further into research, discovery and clinical development, GCCs can contribute meaningfully to India's journey from the "pharmacy of the world" towards becoming a global pharma powerhouse driven increasingly by research and innovation.

Importantly, the value of this evolution can extend well beyond individual enterprises. Deeper GCC capabilities can create new opportunities for India's scientists and professionals, strengthen specialist and research capabilities, and connect global biopharma more closely with India's academic, clinical and innovation ecosystem. It is an opportunity to create value in both directions: what India enables for global biopharma, and what deeper global engagement helps build for India.

Realizing this potential will require the ecosystem to move together. Industry, government, academia, research institutions and global enterprises each have a role in creating the talent, scientific infrastructure, regulatory environment and partnerships through which innovation can flourish.

At OPPI, we believe this is an important part of India's larger journey towards an innovation-led pharmaceutical future, one that strengthens our contribution to global healthcare while building enduring capabilities *Bharat Ke Liye*. As that journey advances, our focus must remain on turning innovation into meaningful progress for patients and strengthening India's role in shaping the future of global healthcare.



Winselow Tucker

President and General Manager;
Eli Lilly and Company (India);
Chair, OPPI GCC Workgroup

The most exciting opportunities in healthcare emerge when science, technology and talented people come together around a shared purpose: improving outcomes for patients. India is uniquely placed to bring these strengths together at scale and contribute even more meaningfully to global biopharma innovation.

GCCs can play an important role in that journey. India-based teams have the opportunity to own capabilities end-to-end, solve complex global problems and become hubs where scientific, functional and technology expertise come together to create greater impact. That evolution is already opening possibilities across areas such as AI-enabled transformation, drug discovery and development.

What makes India particularly compelling is the opportunity to connect these global capabilities with a dynamic local market and a broader healthcare and innovation ecosystem. Realising the full potential of these connections requires us to think more holistically about how global capabilities can strengthen innovation in India, how solutions shaped by India's needs can have relevance beyond its borders, and ultimately, how this progress can contribute to better outcomes for patients globally.

Realizing the full potential will require continued investment in talent and leadership, deeper scientific and digital capabilities, and an environment that enables research, innovation and collaboration to thrive.

Ultimately, the opportunity is not simply to do more from India, but to create more from India: ideas, capabilities and innovations that can make a meaningful difference to patients in India and around the world.



Nikhil Kumar

Life Sciences GCC Leader,
EY India

For many global organizations, access to India's deep and diverse talent pool is the starting point of the GCC journey, but it is no longer the destination. Once established, the expectation is for these centers to evolve into multifunctional enterprise hubs that connect capabilities across the value chain, take on greater ownership and contribute more directly to business priorities. This shift is redefining the measure of GCC success: from the scale of talent and services delivered to the strategic value created for the global enterprise and for India.

For pharma GCCs, that raises a more consequential question: can they help shape the future of global biopharma, while creating a lasting capability dividend for India?

The global pharma industry is being reshaped by Artificial Intelligence (AI), new scientific modalities, and the imperative to bring therapies to patients faster. Competitive advantage will increasingly come from connecting capabilities that have traditionally operated apart: science and technology, global strategy and local execution, enterprise platforms and external innovation ecosystems. India has the talent, scale and, increasingly, the ecosystem to connect these worlds.

But potential does not automatically translate into strategic relevance. A GCC does not become transformative simply by absorbing more work or automating existing processes. It becomes transformative when it influences decisions, challenges established models and takes accountability for outcomes that matter to the enterprise. That is the next frontier of GCC growth.

The opportunity is equally significant for India. As GCCs take on deeper scientific, digital and enterprise mandates, they can create new career pathways, develop global leaders, strengthen specialist capabilities and connect India's research and innovation ecosystem more closely with global biopharma. This creates the possibility of a virtuous cycle: stronger GCCs deepen India's capabilities, and stronger national capabilities enable GCCs to take on more ambitious global mandates.

Realizing that cycle will require an ecosystem mindset. Enterprises and GCCs cannot create it alone. Industry, government, academia, research institutions, start-ups and other ecosystem participants will need to work together, each strengthening a different part of the ecosystem so that progress in one area reinforces progress in others.

The next generation of pharma GCCs should therefore be defined not only by what they deliver for the global enterprise, but also by what they help make possible around them. This report is an invitation to raise that collective ambition.

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EXECUTIVE SUMMARY

01 Pharma GCCs have evolved from delivery centers to strategic enterprise capabilities

The GCC model has progressed through four stages: 1) Delivery / cost center; 2) Capability center; 3) Innovation partner; 4) Enterprise-critical node. Leading centers now combine specialized domain expertise with data, technology, and enterprise context, and are increasingly measured through defined functional and business outcomes rather than activity volumes alone.

This evolution spans the pharma value chain. India teams undertake core scientific, functional, and strategic work across discovery, clinical development, safety, regulatory, medical, market access, commercial, manufacturing and supply, and enterprise functions. As more end-to-end processes across the value chain are housed in GCCs, these teams are redesigning workflows with AI, unlocking efficiencies, and accelerating the speed and effectiveness of value creation across the enterprise.

India hosts more than half of the world's GCC base, underpinned by six mutually reinforcing drivers (identified based on extensive primary research^)

1. Talent and knowledge capital at scale
2. Cost-to-capability advantage
3. Digital, AI, and technology strength
4. Mature GCC operating ecosystem
5. Industry, academia, and innovation network
6. Policy, infrastructure, and institutional momentum

02 Pharma GCCs create value for India well beyond their own operations

Economic contribution	High-quality employment	Innovation and access	Ecosystem strengthening	Broader India value
▪ US$182b in GVA*, 10.4m jobs*[2] and 34.9m sq. ft. of office space in 2025 (45% of India leasing) ▪ Multiplier across suppliers, infrastructure, and household consumption	▪ Specialist career and wider pathways for scientific, technical and business talent ▪ Global knowledge, leadership roles and international experience built in India	▪ Scientific and innovation capability building in India ▪ India's integration into global development and launch pathways	▪ Talent: Industry-academia partnerships ▪ Startups: Domain expertise, mentoring ▪ Industry ecosystem: collaboration with research institutions, CROs/CRDMOs	▪ Workforce inclusion and wider access to globally oriented careers. ▪ Contributions to public-health, sustainability, and community priorities

^Jointly conducted by OPPI and EY between Sep'26 to Oct'26 with pharma GCC leaders, global sponsors, functional leaders, and policy, academic, life sciences skilling, research and innovation-ecosystem stakeholders

*Overall India GCC sector estimates; GVA/jobs include direct, indirect, induced impact

03 Building the next frontier: Pharma GCCs in India's journey to Viksit Bharat

Two horizons define the future opportunity for pharma GCCs: Scale the proven base through new entrants, center expansion, capability consolidation, and deeper mandates; and open new value frontiers that extend India's role in global biopharma.

New value frontiers for pharma GCCs

1. **End-to-end capability ownership**

   Global ownership for E2E capabilities, with decision authority and accountability for end-to-end outcomes

2. **AI-powered enterprise reinvention**

   Domain specialists and tech teams embed AI across connected capabilities, transforming and reimagining functions, and ultimately the enterprise.

3. **Science-to-patient innovation**

   Combine experimental science with India's digital strength to build integrated lab + AI discovery capabilities; deepen linkages with hospitals, investigators and clinical infrastructure to position India as a stronger global clinical research hub

4. **India-to-world ecosystem gateway**

   GCCs become a gateway connecting global biopharma with India's science, technology, clinical and innovation ecosystem, while giving Indian ideas and capabilities a route into global enterprise networks

04 Scaling the opportunity requires five capabilities to advance in parallel

India already has strong foundations. Scaling these new value frontiers will require coordinated action across GCCs, industry, government and academia to strengthen the talent, technology, scientific infrastructure and operating environment.

Build GCC readiness for larger global mandates	▪ Build India-based leaders for increasingly global roles ▪ Expand global ownership, decision authority and executive sponsorship
Create a future-ready talent and leadership pipeline	▪ Deepen pharma domain and specialist expertise ▪ Strengthen industry readiness through practical exposure and continuous industry-academia exchange
Expand India's AI and digital capability advantage	▪ Build AI talent at scale and hybrid pharma + AI capability ▪ Strengthen compute and digital infrastructure for increasingly AI-intensive work
Build the foundations for deeper discovery and clinical research	▪ Expand access to scientific infrastructure, early-stage support and research-ready clinical capacity ▪ Strengthen science-led regulatory pathways, Intellectual Property (IP) protection and trusted research-data governance
Keep the operating environment competitive as GCCs scale	▪ Simplify compliance for increasingly integrated GCCs ▪ Align tax and transfer-pricing certainty with evolving mandates ▪ Build a coordinated India proposition, supported by effective central and state government facilitation and location readiness

The opportunity ahead is to shape an ecosystem in which India's pharma GCCs become increasingly central to global pharma innovation and transformation, while translating their growing strategic role into enduring capabilities, value and growth for India.

> "As one global CEO once said to me, 'India is the heart of our company. When India beats, our business beats.
>
> Senior state government official



CHAPTER 1

Evolution of pharma GCCs in India:

From driving cost arbitrage to strategic enterprise critical nodes

What began largely as a model for accessing cost-effective talent and delivering standardized support activities decades ago has now evolved into an integral part of the global enterprise, bringing together multiple functions, and contributing to increasingly strategic mandates. Mature GCCs now combine scientific, domain, and digital capabilities; own processes, products, platforms, and business outcomes; and influence global priorities across the pharma value chain. The shift is not simply about moving more work to India; it is about placing greater accountability, specialized capability, and decision-making closer to the talent performing the work.

This evolution is occurring as global pharmaceutical companies navigate rising R&D costs, loss-of-exclusivity exposure, increasing regulatory complexity, rapid technology change, and a more volatile geopolitical and macroeconomic environment. In that context, India GCCs are becoming important to enterprise resilience, productivity, innovation, and growth.

India GCC landscape expanding in scale and value creation

India has become the principal global destination for GCCs, combining operating scale, talent depth, and ecosystem maturity that is difficult to replicate in a single market. According to recent estimates, India hosts more than 2,100 GCCs operating through over 3,700 units, generating US$98.4 billion in revenue[3]. The ecosystem includes GCCs of 506 Forbes Global 2000 companies, along with a growing base of mid-market and private equity-backed enterprises[4].

Pharma participation in India's GCC ecosystem is already extensive. EY analysis indicates that at least 16 of the world's top 20 biopharma companies by 2025 revenue, or 80%, have established GCCs or equivalent global capability operations in India[5]. Increasingly, these centers go beyond enabling functions to bring together specialized scientific, digital, and business capabilities at scale, with India-based teams taking on responsibilities that influence global development programs, regulatory submissions, drug launches, supply continuity, and enterprise transformation.

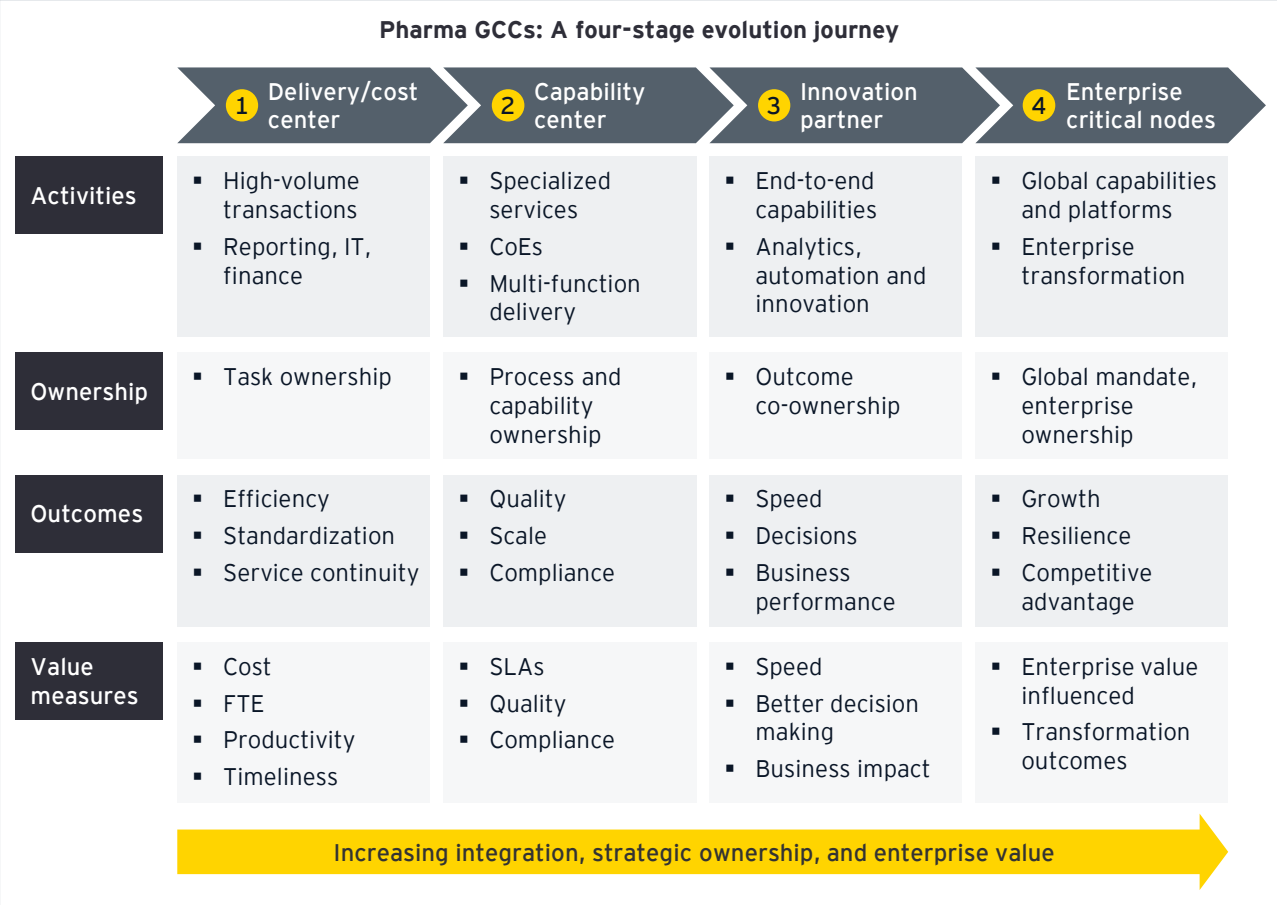
> Conversations with pharma GCCs have evolved. The aspiration is no longer for GCCs to simply deliver predefined activities, but to own global scientific capabilities, strategic decisions, digital transformation, and innovation. The shift is also from predominantly IT capability towards life sciences capability, bringing research, clinical development, regulatory science, pharmacovigilance, manufacturing science, data science, and AI together under one umbrella.
>
> State government life sciences ecosystem leader

Pharma GCC evolution: A four-stage journey to enterprise value

During September and October 2026, OPPI and EY conducted primary research with pharma GCC leaders, global sponsors, functional leaders, and policy, academic, life sciences skilling, research and innovation-ecosystem stakeholders. Four stages of GCC evolution consistently emerged from those discussions, as illustrated in the exhibit. The journey has not been linear or uniform. Mature centers typically built credibility through execution before assuming process, capability, and outcome ownership. Newer entrants are now drawing on India's established GCC ecosystem and starting with wider mandates. The framework should therefore be read as an evolution in value, ownership, and enterprise relevance, rather than a fixed sequence that every company follows in the same way.

> Established GCCs started with simpler work, proved delivery, and progressively gained more complex mandates. Newer GCCs can now make larger, more deliberate moves because India's ability to deliver complex work at scale has already been established.
>
> GCC leader

[3] India GCC Landscape 2026
[4] Zinnov-nasscom India GCC Landscape Report 2026
[5] EY analysis



Source: Primary research, EY analysis

Stage 1 and 2: Building trust through reliable delivery and capability depth

The earliest pharma GCC mandates were shaped by the economics of location and the need to consolidate repeatable, high-volume, and process-oriented activities in company-owned centers. These functions primarily included clinical-trial support, regulatory operations, pharmacovigilance, IT, finance, and HR. In several cases, work already performed in India through external providers was brought in-house to strengthen control, retain institutional knowledge, and align execution more closely with company processes.

As confidence increased, mandates expanded into more specialized and knowledge-intensive work across the value chain. Activities previously fragmented across markets, business units, or external partners were consolidated and connected within the GCC. This supported stronger retention of organizational knowledge, economies of scale, global process standardization, and faster technology deployment. This progression is particularly significant in biopharma because regulated and science-led work depends on continuity of knowledge, sound judgement, and accountability.

> Over the last 10 to 15 years, the model has moved from individual tasks being performed by India to parts of the value chain being managed end to end.
>
> Global sponsor

> The question is no longer, "What else can we move to India?" It is, "Which business problems can we solve and what value can we unlock?
>
> GCC leader

Stage 3 and 4: Creating value through innovation and enterprise impact

The transition to innovation partner becomes visible as India teams move beyond delivery of established processes to actively improving how work is done and how outcomes are achieved. Organizations are increasingly leveraging analytics, automation, and AI across functions, with value increasingly reflected in better decision-making and stronger business outcomes.

> The metric is moving beyond capability. For instance, within regulatory, it is the innovation brought to make submissions more timely, relevant, and impactful.
>
> Global sponsor

> If skills, scale, and cross-functional capability in India can halve the time from last-patient-last-visit to regulatory submission, that is meaningful value creation (from India).
>
> GCC leader

At the enterprise-critical-nodes stage, the GCC is embedded in the company's operating model, and increasingly critical to business continuity and enterprise performance. Strategic relevance is assessed by the growth, resilience, transformation, and patient outcomes the center enables, and by the consequences for the enterprise if those capabilities are unavailable.

> India has moved from somewhere work could be sent, to an embedded contributor to global decision-making. If any one of our 17 functions stopped, the company would slow down very quickly.
>
> GCC leader

Leading pharma GCCs are increasingly described as "headquarters (HQ) twins": locations that work alongside global decision centers, co-own defined outcomes and contribute to enterprise priorities.

> GCC colleagues are now included in the same functional town halls and leadership communication as headquarters teams.
>
> Global sponsor

Interviewees also highlighted India-based leaders participating in global functional leadership teams, directing global capabilities, and managing teams across countries. This expands the center's influence and builds an enterprise leadership pipeline from India.

> Almost every function here has people sitting in global leadership teams. India is now an embedded contributor to global decision-making.
>
> GCC leader

> More than 100 leaders or teams based in India are managing global teams.
>
> GCC talent leader

Cross-industry evidence reinforces this evolution. The EY 2025 GCC Pulse Survey reported that 52% of surveyed GCCs shared accountability for global decisions, 26% were consulted on key decisions, and 20% had full ownership in select areas[6].



[6] Global Capability Center (GCC) Pulse Survey November 2025; survey includes responses from GCCs spanning multiple industries, operating out of India and key international hubs including Mexico, Poland, Malaysia, Romania and the Philippines, among others

Pharma GCCs increasingly span the end-to-end value chain

The clearest evidence of maturity is the breadth and depth of work performed today. India-based pharma GCCs support work across drug discovery, clinical development, safety, regulatory, medical writing, medical affairs, evidence generation, pricing and market access, commercial operations, supply chain and manufacturing, and enterprise functions. The leading edge is defined not only by functional coverage, but by the level of judgement exercised and the outcomes owned within each function.

India's pharma GCCs increasingly contribute across the end-to-end value chain

	Advanced activities today	AI/process transformation	Outcomes influenced
Discovery and early research	▪ Computational discovery ▪ Target and molecule analytics ▪ Scientific knowledge platforms ▪ Selected experimental research	▪ AI-assisted target identification and prioritization ▪ Scientific knowledge mining ▪ Molecular simulation and predictive modeling	▪ Faster hypothesis generation ▪ Improved target prioritization ▪ Stronger candidate selection ▪ Research productivity
Clinical development	▪ Clinical-trial strategy and operations ▪ Trial-data management ▪ Statistical programming and medical oversight ▪ Selected study and program leadership	▪ Protocol design and digitization ▪ Site selection and patient recruitment analytics ▪ Automated data review ▪ Real-time trial monitoring	▪ Improved study delivery and data quality ▪ Shorter trial cycle times ▪ Stronger trial decisions ▪ Improved trial oversight
Safety / pharma-covigilance	▪ Case processing and medical review ▪ Workflow orchestration ▪ Global safety operations ▪ Signal detection and benefit-risk support	▪ Automated case intake, coding, and triage ▪ Case-review workflow automation ▪ Automated reporting support ▪ Advanced signal analytics	▪ Timeliness and compliance ▪ Case quality and consistency ▪ Earlier signal detection ▪ Strengthened safety oversight
Regulatory	▪ Regulatory intelligence ▪ Global regulatory strategy ▪ CMC, global submissions ▪ Regulatory/medical writing ▪ Health-authority engagement	▪ Precedent search and content reuse ▪ Automated regulatory content authoring and review ▪ Intelligent health authority query-response drafting	▪ Submission quality ▪ Shorter submission and response cycles ▪ Regulatory readiness and decision support
Medical affairs and evidence	▪ Global medical strategy and evidence planning ▪ RWE analysis and interpretation ▪ Congress strategy, symposia, and expert/KOL engagement	▪ AI-supported insight generation and evidence synthesis ▪ Scientific content modularization and reuse ▪ Omnichannel medical engagement	▪ Evidence relevance and usability ▪ Faster medical insight generation ▪ Scientific exchange quality ▪ Broader and more timely medical engagement
Pricing and market access	▪ Pricing, market access and reimbursement strategy ▪ HEOR and payer-focused RWE ▪ Value dossiers, payer submissions ▪ Global access and launch sequencing	▪ Pricing and access scenario modelling ▪ Evidence analytics ▪ Automated payer and market insights synthesis	▪ Stronger value demonstration ▪ Better-informed pricing and reimbursement decisions ▪ Improved access and launch readiness
Commercial and launch	▪ Portfolio, brand and launch strategy ▪ Customer and competitive insights ▪ Campaign strategy ▪ CRM, content factories, omnichannel operations	▪ Real-time customer insights and next-best-action personalization ▪ Next-generation CRM and omnichannel orchestration ▪ AI-enabled content optimization ▪ Digital patient engagement	▪ Commercial and launch readiness ▪ Launch effectiveness ▪ Customer experience and engagement ▪ Faster, better-informed commercial decision-making
Supply chain and manufacturing	▪ Global demand, supply and production planning ▪ Digital manufacturing and traceability ▪ Advanced-therapy supply-chain support, including cell and gene therapy	▪ Predictive demand, inventory, supply, and capacity planning ▪ Automated order-to-delivery workflows ▪ Digital twins and process simulation ▪ Predictive quality and manufacturing safety monitoring	▪ Product availability and service levels ▪ Supply resilience ▪ Manufacturing quality and productivity ▪ Earlier identification of operational and quality risks
Enterprise functions	▪ Finance, procurement and HR: Business partnering, planning and decision support ▪ IT: Enterprise platforms, data and cybersecurity	▪ AI-enabled enterprise workflow automation ▪ Copilots and intelligent assistants ▪ Enterprise platform modernization ▪ Intelligent decision support	▪ Productivity and decision support ▪ Enterprise resilience ▪ Employee and stakeholder experience

Illustrative examples based on OPPI–EY primary and secondary research. Activities vary by GCC maturity; outcomes shown are influenced by, rather than solely attributable to, GCC activity

Research and development

> We are building AI capabilities on the drug-discovery side, including computational chemistry and biology, to accelerate discovery and generate synthetic data.
>
> GCC leader

> Nearly every molecule that reaches late-stage development in the firm has some contribution from teams in India.
>
> GCC leader

> Asset leadership roles are increasingly coming to India, with teams taking on greater responsibility for clinical trial strategy and execution, regulatory pathways, safety and labelling, and broader asset direction.
>
> GCC R&D leader

Regulatory and safety

> Regulatory strategists in India work with global teams to determine the roadmap from first-in-human studies through launch, including market sequencing and accelerated pathways.
>
> ...India's CMC experts bring deep experience in Active Pharmaceutical Ingredients (APIs), formulations, small molecules and biologics, including the assessment of manufacturing and formulation changes for global submissions.
>
> GCC leader

> Nearly three quarters of our global pharmacovigilance caseload is now managed from Bengaluru.
>
> GCC leader

Market access, launch, commercialization

> India-based medical teams now lead Congress strategy, scientific sessions, KOL engagement and publications, including authorship and presentation of evidence at major global meetings.
>
> GCC Commercial leader

> India-based market-access capabilities in HEOR and RWE help demonstrate the relevance and value of an innovation to different stakeholders across countries, while informing access and launch planning.
>
> Global sponsor

> India teams are developing next-generation customer-management tools and patient-support applications that help patients navigate information and day-to-day needs after diagnosis.
>
> GCC Commercial leader

> A central AI-enabled insights platform now brings together patient, HCP and advisory-board insights in near real time, allowing cross-functional teams to make faster and more coherent decisions.
>
> GCC Medical and Portfolio leader

Supply chain and manufacturing

> Our global operational-planning team in Bengaluru plans production sites and manages trade-offs. If a market faces a stock-out risk, the call comes to Bengaluru: the team is accountable for servicing affiliates and patients.
>
> Global sponsor

> Our Hyderabad teams support the design, build, regional adoption and run of the global S/4HANA core transformation.
>
> Global sponsor

> India hosts a global supply-chain center of excellence (CoE), including work on cell-therapy logistics, factory design, and digital manufacturing.
>
> GCC Digital and Technology leader

Enterprise functions

> The finance business partner may sit in the India team while the business sits in headquarters. That represents a shift from transaction processing to advising the business on investment decisions.
>
> GCC Enterprise Functions leader

As more end-to-end processes are co-located in GCCs, bringing business, science, process and technology capabilities together helps teams identify cross-functional friction, redesign workflows and scale successful solutions across markets and functions. Predictive analytics, machine learning, generative AI, intelligent agents and automation are enabling deeper transformation within individual functions and greater integration across the value chain, progressively embedding AI into the operating model.

> India combines AI evangelists with functional experts who can test outputs, identify hallucinations and convert technology into business-ready tools for regulated work.
>
> GCC leader

> We are applying AI across the value chain. In R&D, for instance, AI is helping improve therapeutic target identification and has reduced some processes that previously took weeks to just hours.
>
> GCC leader

Novo's Bengaluru GCC optimized clinical reporting by reducing the time required to review regulatory documents from approximately 40 hours to 40 minutes. The same center supports clinical data, biostatistics, medical writing, and regulatory reporting for global programs[7].

> AI and automation can cut the preparation time for selected clinical-study reports and Module 2 submission documents by approximately half, helping accelerate submissions and responses to health authorities.
>
> GCC leader

Sanofi's Turing program, with significant contribution from its Hyderabad team, supports personalized interactions with more than 100,000 healthcare professionals across 12 markets[8]. Integrated insights capabilities further help translate signals from healthcare professionals, patients and local markets into more informed launch, brand and engagement decisions.

> We are building several applications and companionship apps to support patients during their disease journey.
>
> GCC Commercial leader

> The flow from an affiliate or pharmacy order through to delivery is being optimized by AI; much of that process now operates without human touch.
>
> GCC leader

> Co-location brings product, supply-chain, technology and business teams together. That collaboration helps solve enterprise problems faster and develop solutions that work across the organization.
>
> GCC Talent leader

> An India-developed SAP smart assistant reduced incident creation by about 94%, from four hours to 15 minutes.
>
> GCC Talent leader

These examples show how AI-enabled transformation can influence outcomes such as faster submissions, improved target identification, better stock-risk visibility, higher productivity and more responsive customer engagement. They also highlight the value of co-location: bringing business, science, process and technology capabilities together within the GCC can help teams identify cross-functional friction, redesign workflows and scale successful solutions across markets and functions.

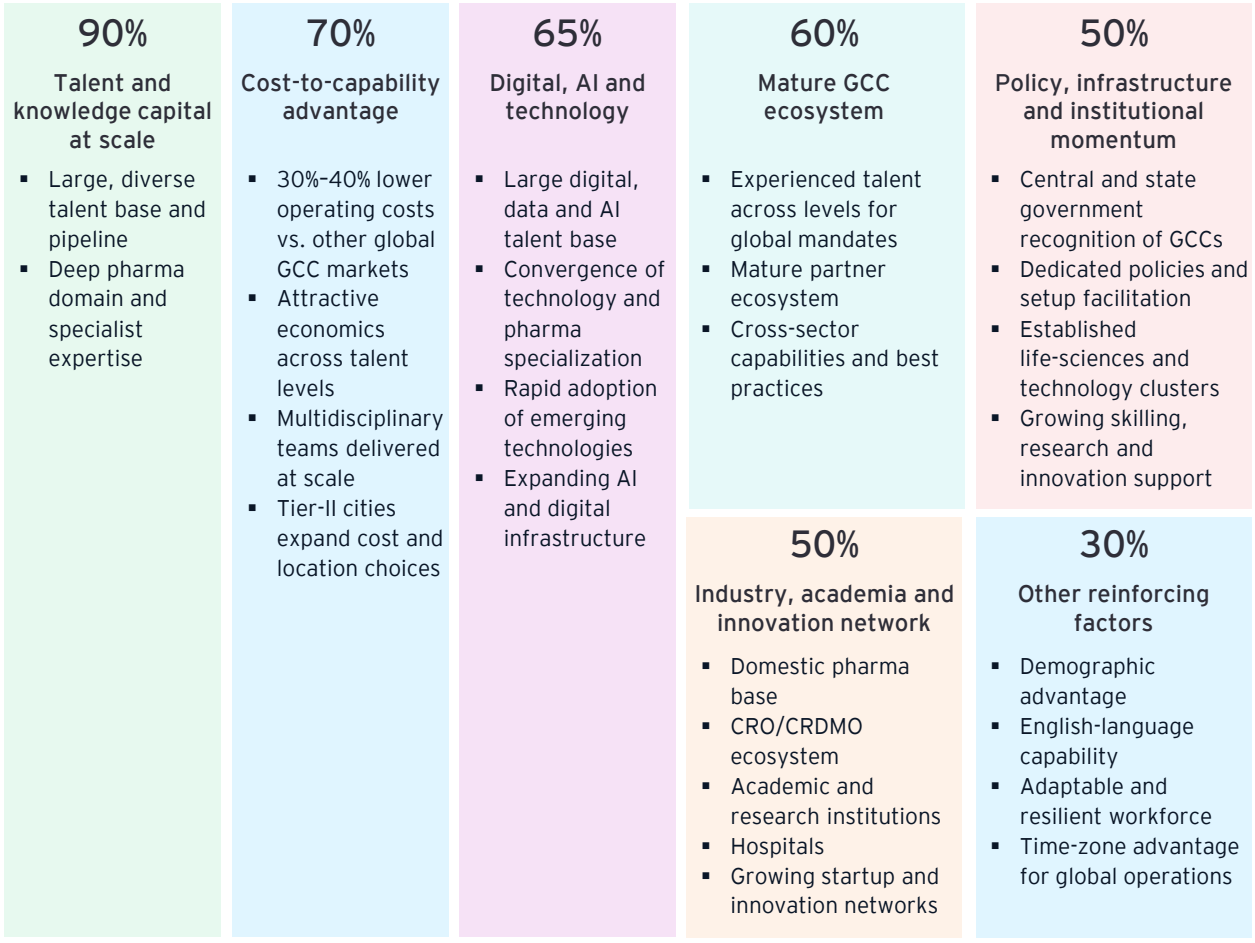
[7] Novo Nordisk's Bengaluru GCC: A Transformative Force in Global Pharma Operations, ETGCC
[8] Revolutionizing Drug Discovery: Sanofi's AI Journey from Snackable Tools to Major Innovations, ETEnterpriseai

Growth drivers: India's advantage compounds through the interaction of multiple factors

According to industry estimates, India houses over half of the world's GCCs, giving the country a breadth and concentration of experience difficult to replicate[9]. This proposition is particularly relevant for pharmaceutical companies.

Primary research consistently identified six mutually reinforcing drivers: talent and knowledge capital; cost-to-capability advantage; digital, AI and technology strength; a mature GCC operating ecosystem; an industry, academia, and innovation network; and policy, infrastructure and institutional momentum. Other factors, including demographics, English-language ability, time-zone coverage, and workforce adaptability, reinforce these six drivers.

Six reinforcing advantages underpin India's ability to attract and scale strategic biopharma mandates
(based on primary research responses)



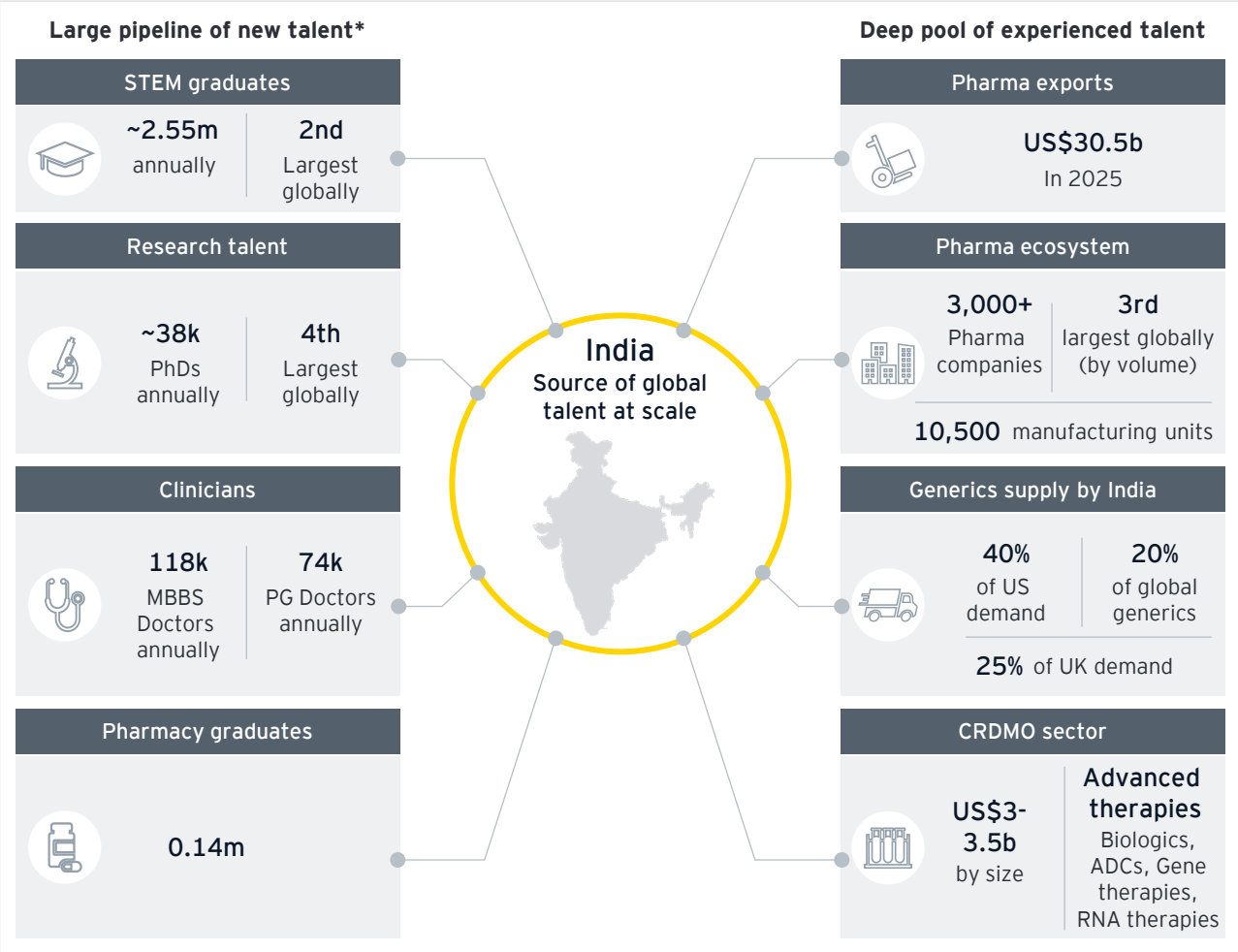
Note: Percentages reflect the share of primary-research participants identifying each advantage. Participants could identify more than one advantage; therefore, percentages do not sum to 100%. Box area is proportional to the percentage shown.

1. Talent and knowledge capital at scale

Primary-research participants consistently described talent as India's foundational advantage. The strength lies in both scale and diversity. India's higher-education system enrolled 45 million students in 2023–24, including 10.19 million in STEM disciplines; women represented 44% of STEM enrolment. The country also has deep pipelines across medical, pharmacy, science, engineering, management, and quantitative disciplines[10]. This scale is continually replenished by new talent

[9] India houses more than half of the world's Global Capability Centres (GCCs): Report | IBEF
[10] AISHE Final Report | AISHE | India

entering the workforce each year[11],[12],[13],[14],[15]. Beyond the graduate pipeline, India benefits from a deep pool of experienced pharmaceutical and life-sciences talent built on decades of India's prominence in the global pharmaceutical industry[16],[17]. Large pharmaceutical companies and an established Contract Research Organization/Contract Research Development and Manufacturing Organization (CRO/CRDMO) sector[18] have developed professionals with experience across regulated functions such as Chemistry, Manufacturing and Controls (CMC), regulatory affairs, clinical development, quality, manufacturing and supply chain.



*recent estimates

For biopharma companies, this creates the ability to assemble multidisciplinary teams spanning clinicians, pharmacists, PhDs, medical writers, biostatisticians, bioinformaticians, clinical-research professionals, engineers, data scientists, and business professionals.

> The sheer depth and scale of the talent pool sets India apart.
>
> GCC leader

> The advantage is not only the volume of talent; it is the brilliance within that volume.
>
> Global sponsor

[11] The STEM Pipeline in India: From Science Classrooms to STEM Degrees | Education for All in India
[12] Home - Pharmacy Council of India, Ministry of Health & Family Welfare, Government of India
[13] PhD, research and its upshot - India Today
[14] 1.18 lakh MBBS, 74000 PG doctors graduating- India's medical infrastructure more than doubled in the last decade: Amit Shah
[15] India's witnessing a PhD boom
[16] Press Release Page | Press Information Bureau
[17] Indian Pharma Exports Making a Global Mark
[18] India's CRDMO sector growth potential at $22 - $25 Billion by 2035, driving global pharma innovation: BCG-IPSO Report - Aragen Life Sciences

2. Cost-to-capability advantage

Cost competitiveness remains relevant to India's GCC proposition. India enables enterprises to scale global operations while maintaining an attractive cost base, offering 30%-40% lower operating costs compared to Easten Europe and Latin America[19], [20]. Primary research, however, indicates that India's advantage is increasingly assessed as cost to capability rather than labor cost alone. Companies can assemble scientific, functional and technology teams at scale while maintaining attractive overall economics. India's broader city portfolio provides an additional economic lever with tier-II cities offering 25%–50% lower operating costs than Tier-I Indian metros, driven by differences in talent, real estate and other operating expenses[21].

> Cost remains important, but it is no longer the primary reason for choosing India.
>
> GCC Talent leader

> The underlying economics remain attractive, with stronger science and technology capabilities further improving India's value proposition.
>
> GCC leader

3. Digital, AI and technology leadership

India's digital strength has become a distinct advantage. The country combines software engineering, data, cloud, cybersecurity, and AI capability with a large base of enterprises already deploying those technologies through GCCs. The 2026 GCC landscape identifies more than 250K AI professionals in the GCC ecosystem across sectors, over 1,200 GCCs[22].

National digital infrastructure is also expanding alongside. The Government of India approved an outlay of INR103.72 billion for the five-year IndiaAI Mission. By October 2025, 38,000 GPUs had been reported as deployed under the Mission, alongside initiatives covering compute access, datasets, indigenous models, applications, skills, startup support, and responsible AI[23]. India's major data-center markets hold significant operational capacity with additional capacity under development as demand for cloud and AI infrastructure continues to grow.[24]

For pharma GCCs, the differentiator is India's ability to combine deep technology capabilities with scientific and domain expertise, enabling GCCs to apply digital and AI across complex and highly regulated global pharma workflows.

> India's digital and AI ecosystem has become a core part of the location proposition: companies can access the talent depth required to embed technology in global scientific and business workflows.
>
> GCC leader

4. A mature GCC ecosystem

India's advantage is strengthened by more than four decades of GCC setup[25], transition, expansion and transformation experience. This maturity has created a workforce across levels with a strong understanding of global operating models and ways of working. It is supported by an established partner ecosystem spanning recruitment, technology, and infrastructure, enabling companies to establish and scale GCC operations faster and with greater execution confidence. Equally important, the breadth of India's GCC landscape allows pharma GCCs to benefit from capabilities and practices already proven across sectors such as technology, financial services and engineering.

The maturity of the ecosystem is visible in the starting mandates of new centers. According to a recent research, 96% of GCCs across sectors established after FY2021 launched with a product or portfolio mandate[26].

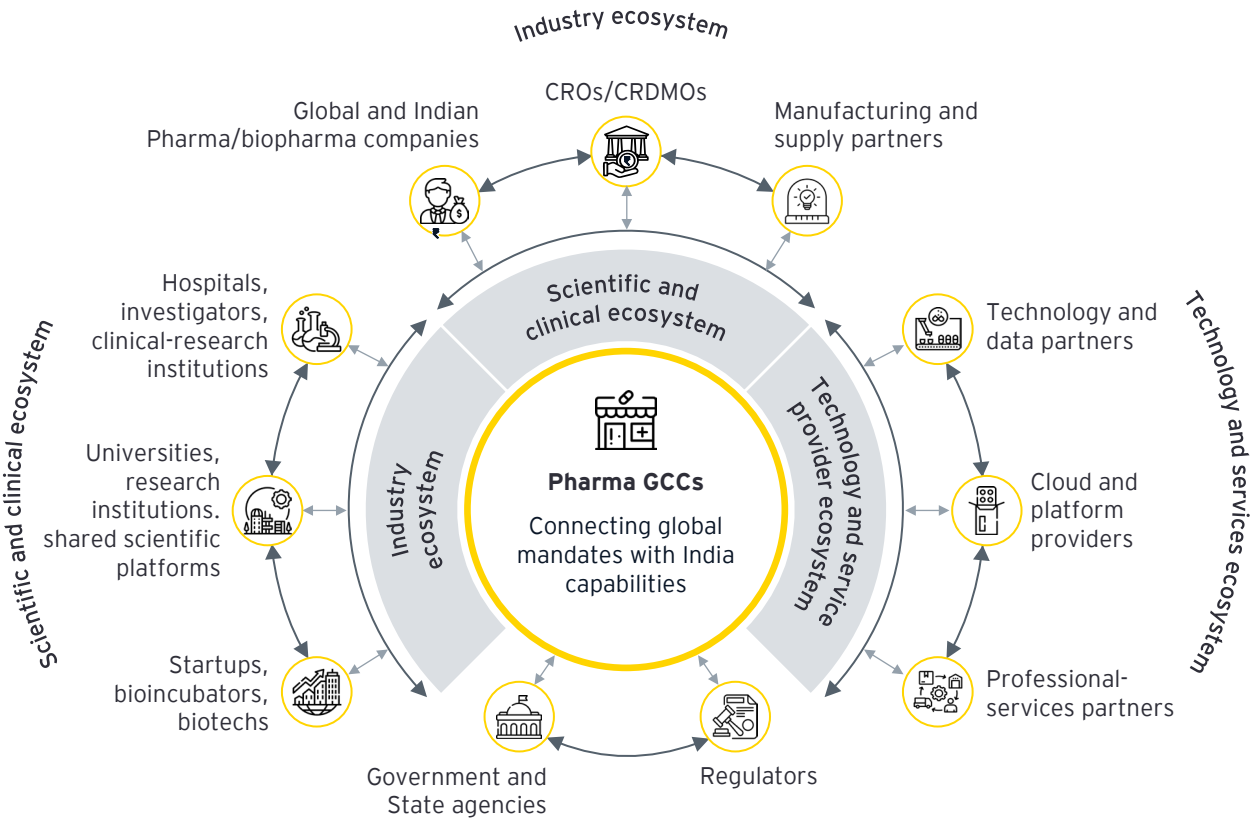
> The maturity of India's talent ecosystem, including the depth of experienced talent and leadership, gives companies the confidence to build and scale here.
>
> GCC Talent leader

[19] Indian Global Capability Centres (GCC) industry to hit US$ 100 billion by 2030, generate over 2.5 million jobs | IBEF
[20] Cost of Setting Up a GCC (Global Capability Center) in India
[21] Beyond metros: the tier-II emergence and India's multi-hub GCC model
[22] Market: India hosts 3,728 GCCs with $98bn revenue – Fiinews
[23] Transforming India with AI
[24] India Data Centre H1 2026 Updates | IN | Cushman & Wakefield
[25] Texas Instruments India Celebrates 40 Years of Semiconductor Innovations, ETGCC
[26] Market: India hosts 3,728 GCCs with $98bn revenue – Fiinews

5. An industry, academia, and innovation network

Pharma GCCs in India operate within a wider ecosystem of pharmaceutical companies, healthcare organisations, CROs/CRDMOs, research institutions, technology providers, startups, universities, incubators, and specialist suppliers. This network allows GCCs to access knowledge and capabilities beyond their organizational boundaries.

Pharma GCCs connect into a broader ecosystem



Source: EY analysis; illustrative ecosystem participants and capabilities

> People think about talent and cost, but not always about the entire ecosystem India offers: academia, hospitals, and proximity to major players in AI and life sciences.
>
> Global sponsor

> We take visiting leaders to C-CAMP and the bio-innovation ecosystem to identify collaboration opportunities.
>
> GCC Commercial leader

6. Policy, infrastructure and institutional momentum

Government and institutional support is becoming more explicit, combining GCC policy with stronger sector ecosystems and infrastructure. Telangana illustrates the sector-led model: its Next-Gen Life Sciences Policy 2026–2030 builds on an established pharmaceutical and research base, including Genome Valley, and places further emphasis on R&D, innovation, advanced capabilities, and global enterprises[27].

Karnataka combines deep life-sciences and technology infrastructure. Its GCC Policy 2024–2029 is structured around talent, local ecosystem development, infrastructure and incentives, and regulatory easing, alongside its "Beyond Bengaluru" agenda. This sits alongside scientific and innovation assets such as Centre for Cellular and Molecular Platforms (C-CAMP) and the wider Bengaluru research ecosystem, giving GCCs access to technology, research, startup, and talent capabilities[28].

Similar policy momentum is emerging across other States, including Maharashtra, Gujarat, Uttar Pradesh and Tamil Nadu, through dedicated GCC policies or schemes[29], [30], [31], [32].

> Federal and state governments have recognized GCCs as an ecosystem to be embraced. Telangana and Karnataka have done this particularly well.
>
> GCC leader

> Genome Valley and the startup ecosystem around T-Hub create gravity for investment and allow GCCs to pilot solutions before scaling them.
>
> Global sponsor

> India has many of the right ingredients, and companies have stayed for a good reason. That is positive testimony to what the country brings to the global economy and workforce.
>
> Global sponsor

As GCCs continue on their growth journey, the significance of that journey now extends beyond the parent enterprise. The next chapter examines this broader value contribution and its significance for the country.

[27] telangana-life-sciences-policy-2026-2030.pdf
[28] Department of Information Technology - Policy5
[29] Gujarat Global Capability Center (GCC) Policy (2025-30)
[30] Maharashtra GCC policy 2025
[31] Special scheme to promote GCCs in Tamil Nadu
[32] UP GCC Policy, 2024 | Official Website of Invest UP, Government of Uttar Pradesh, India



CHAPTER 2

Pharma GCCs as multipliers of value for India:

From economic value creation to human capital and innovation capacity

As global pharma companies deepen their India mandates, pharma GCCs are creating value well beyond their own operations. Their contribution is visible directly in investment, specialized employment, global business activity, and scientific, digital and enterprise capability. It extends through partnerships with academia, research institutions, startups, and CRO/CRDMO networks. These value pools reinforce one another: deeper mandates create stronger careers; stronger careers build skills and leadership; capability enables innovation; and a more mature ecosystem supports the next wave of global work.

Five ways pharma GCCs create value for India

1	2	3	4	5
Economic contribution*	**High-quality employment and human capital**	**Innovation capacity and access**	**Ecosystem strengthening**	**Broader India value**
▪ US$182b total GVA (direct, indirect, induced) ▪ 10.4m jobs supported	▪ ~120k pharma GCC professionals ▪ Specialist careers and global experience ▪ Academia partnerships strengthening talent pipeline	▪ Scientific and innovation capabilities built in India ▪ Closer links to global development and access pathways	▪ Stronger clinical, startup and specialist networks ▪ Global experience diffusing across the ecosystem ▪ Ecosystem depth supporting advanced mandates	▪ Community health and public-health innovation ▪ Increased number of women in workforce ▪ Environmental and community resilience

*Overall India GCC sector estimates

1. Economic contribution: Adding to economic output, employment, and wider multiplier effects

India's GCC sector has become a significant economic engine, generating about US$98.4 billion in revenue by FY26[33]. Its impact extends well beyond direct operations: GCC demand supports domestic suppliers, services and infrastructure; employee spending stimulates consumption across the wider economy.

A sizeable contribution to Gross Value Added (GVA), economic output and employment

In FY25, GCCs across sectors contributed estimated US$182 billion in total GVA, comprising US$68 billion directly, US$55 billion through supply-chain linkages, and US$59 billion through induced consumption. Direct GVA alone represented 2% of India's GDP and 4% of services-sector GDP. GVA per GCC employee, at US$32,500, was around 11 times national GVA per capita. Looking ahead, direct GVA is expected to rise to US$128 billion by 2030, driven by the GCC sector's ongoing transition into higher-order capabilities[34], [35].

Total economic output reached an estimated US$241 billion in FY25, including US$76 billion direct output, US$61 billion through supply chains, and US$104 billion through induced consumption. GCCs also delivered US$62 billion in net exports. The direct output is expected to nearly double by 2030[36].

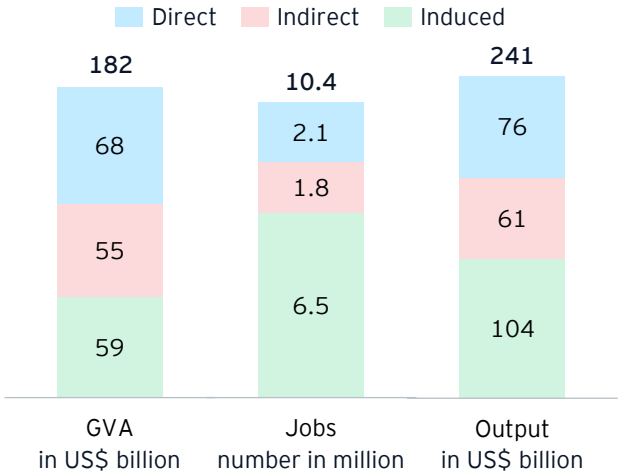
Employment shows the same multiplier. The GCCs supported an estimated 10.4 million jobs in FY25: 2.1 million direct GCC jobs, 1.8 million in allied industries, and 6.5 million through induced economic activity. The direct employment is expected to reach 3 million by 2030[37]. According to recent estimates, pharma GCCs provide employment to 120,000[38] professionals.

[33] India's GCC Revenue Hits $98.4 Bn By FY26: Nasscom-Zinnov Report - BW Businessworld
[34] GCC-2026-Bengaluru-Edition.pdf
[35] CII charts roadmap for India's next phase of global leadership in knowledge industries
[36] GCC-2026-Bengaluru-Edition.pdf
[37] Global Capability Centers: GCC workforce in India to reach 3 million by 2030, tier 2 cities to lead, ETHRWorld
[38] OPPI estimates

> A large pharma GCC creates steady dollar inflow year-on-year, high-caliber direct jobs, and a ripple effect across the wider economy.
>
> GCC leader

> Regular visits from global teams generate additional demand across hospitality, transport, food, and other local services, creating a wider multiplier effect around GCC hubs.
>
> GCC leader

GCCs: Economic impact for India



Pharma GCC economic impact*

	Direct	Indirect	Induced
GVA	US$3.9b	US$3.2b	US$3.4b
Jobs	0.12m	0.10m	0.37m
Output	US$4.3b	US$3.5b	US$5.9b

Source: EY estimate

*Overall GCC Direct GVA per employee is taken as proxy for pharma

2030 Outlook
Future estimate – Direct contribution

US$128b	3m	US$143b
GVA	Jobs	Output

US$62b	US$32,500	~11×
net exports / forex	direct GVA per employee	national GVA per capita

Wider economic activity across India's major hubs

GCC expansion is also reshaping the economies around India's major hubs. GCCs accounted for 45% of Indian office leasing in 2025, or 34.9 million sq. ft. of absorption, generating associated demand across construction, fit-outs, workplace services, mobility, facilities and professional services[39]. In the first nine months of 2026 alone, GCC transactions reached 9.8 million sq. ft. in Bengaluru and 6.2 million sq. ft. in Hyderabad[40]. Similar impact is seen in other states as well including Pune and Chennai[41].

> When I first came to Hyderabad about 15 years ago, there was very little development on the drive from the airport. Today, the city feels as though it begins at the airport. The transformation has been remarkable.
>
> Global sponsor

[39] GCCs Drive 45% of India's Office Market in 2025: Rising Demand and Record Absorption, ETRealty
[40] India Office Leasing 2026: India's Office Leasing Stays Stable at 66.7 Million Sq Ft in 2026; GCC Market Share Grows to 41%, ETRealty
[41] Pune emerges as India's second-largest GCC market in 2025: Cushman & Wakefield - The HinduBusinessLine

2. High-quality employment and human capital: Expanding specialized careers, global exposure and talent circulation

Higher-value mandates creating new career pathways

As pharma GCC mandates expand into more specialized scientific, technology, and strategic work, they are widening the range of high-value career opportunities available in India. Recent GCC investments increasingly combine physical expansion with capabilities across R&D, AI, data, digital, and other strategic functions, creating demand for increasingly diverse specialist profiles. Takeda, for example, launched its Innovation Capability Center in 2025 with plans for around 750 professionals supporting AI-enabled capabilities across areas including R&D[42]. The broader investment landscape shows other biopharma companies expanding specialized R&D, digital, AI and enterprise capabilities in India[43],[44],[45],[46],[47].

India Life Sciences GCC landscape: Recent investments

	Investment size	Key capabilities	Hiring plan
Eli Lilly	Second GCC	▪ Automation, artificial intelligence, software product engineering and cloud computing to deliver accelerated innovations	▪ ~1,500 employees, including technology engineers and data scientists (target employment)
BMS	US$100 million	▪ Innovation hub to accelerate global drug development and IT/digital capabilities ▪ Focus on critical disease areas including cancer, cardiovascular, immunology and fibrotic diseases	▪ >2,000 employees (current employment)
Amgen	US$200 million (additional future investments planned)	▪ A technology and innovation center with a focus on digital, AI, and data science capabilities ▪ New Science and innovation center*: R&D capabilities, including discovery chemistry, drug metabolism, pharmacokinetics	▪ ~2,000 people including scientists, technologists (in progress)
Sanofi	€400 million	▪ Technology and digital capabilities ▪ Research and development	▪ 4,500 employees (target employment) ▪ R&D specialists, data scientists, software and data engineers, AI specialists
Novo		▪ Innovation and transformation hub driving process optimisation, digital advancement, and strategic initiatives	▪ ~4,000 employees including doctors, pharmacists, statisticians, analysts, IT professionals (current employment)

*expected to be operational in 2027

[42] Japanese pharma Takeda launches innovation centre, eyes to onboard AI-driven talent - The Economic Times

[43] press-release-sanofi-expands-its-Hyderabad-GCC-to-grow-capabilities-and-drive-innovation.pdf; Drugmaker Sanofi to expand India GCC, increase workforce to over 4,500 employees - The Economic Times

[44] Eli Lilly GCC Hyderabad: Eli Lilly inaugurates GCC in Hyderabad to fuel AI plans, ETPharma

[45] Novo Nordisk's India GCC steadily moves up the value chain | YourStory

[46] Bristol Myers Squibb opens innovation hub worth $100 million in Hyderabad | Company News - Business Standard

[47] US-based Amgen to open science and innovation center at Genome Valley in Hyderabad - The Economic Times

This is opening new career pathways, for instance, for medical doctors and pharmacologists in global safety; PhDs and scientists in research; biostatisticians and statistical programmers in development; regulatory, CMC and medical-writing specialists; health economics and outcomes research/ real-world evidence (HEOR/RWE) and market-access professionals; and engineers, data scientists and AI specialists. The significance for India is twofold: it increases the economic return on advanced education by creating local demand for specialized qualifications, while also expanding career choices for scientific and medical professionals beyond traditional pathways in clinical practice, manufacturing, and academia.

> Pharmaceutical-sciences students increasingly want innovation-led R&D careers. GCC growth is widening opportunities for pharmacy, biotechnology, bioinformatics, and other specialized disciplines.
>
> Pharmaceutical Education & Research leader

> Our safety teams include medical doctors and pharmacologists. GCCs give them another rewarding path.
>
> GCC Talent leader

Global careers and talent mobility strengthening brain circulation

India-based professionals are gaining greater exposure to global teams, cross-market work and international career opportunities. Primary research points to professionals leading global workstreams from India, moving between India and global headquarters, and building international experience and networks without needing to relocate permanently overseas. At the same time, the availability of sophisticated roles in India is creating opportunities for experienced professionals working abroad to return and continue global careers from India.

Together, these dynamics strengthen brain circulation. Two-way mobility brings global experience and networks into the India talent pool, while attractive domestic career opportunities allow more of that capability to be retained and redeployed locally. Returnees further enrich the country's ecosystem with experience of global R&D, regulatory environments, and enterprise leadership.

> We move people both ways. Colleagues from headquarters spend time in India to understand the GCC model, while India talent also takes roles at headquarters.
>
> GCC leader

> People who have spent years in multinational organizations outside India are also coming back. They bring global knowledge and use that experience to develop talent and strategic capability here.
>
> GCC leader

GCC–academia collaboration strengthening the future talent pipeline

Pharma GCCs are building stronger links with academia to strengthen the future talent pipeline. Collaborations span curriculum and course design, certifications, internships and apprenticeships, faculty and student immersion, and problem-led hackathons. These models give students earlier exposure to global pharma work and give academic institutions greater visibility into evolving roles and capability needs.

> The more we interact with pharmaceutical companies, the clearer is our understanding of the capabilities industry expects. Faculty immersion and real-world examples are changing how we prepare students.
>
> Pharmaceutical Education & Research leader

> A recent hackathon had 110 teams from 16 universities working on six problem statements. The skill level and the scale of interest were striking.
>
> GCC leader

> We also engage with students through lectures and workshops on communication and working in a global environment. It helps them understand different cultures and develop the skills needed to work effectively across global teams.
>
> GCC leader

Industry–academia partnerships are strengthening the talent pipeline

Curriculum and course design

AstraZeneca × Sastra University

6-month elective course for students on clinical R&D: Co-designed curriculum covering areas such as biostatistics, data management, IT, and medical informatics in drug development

Internship programs

Sanofi early-career model

Six-month internships in Hyderabad place participants on global projects with experienced mentors and teams

Source: AstraZeneca. Sanofi

3. Innovation capacity and access: Strengthening India's role in global innovation and access to innovative medicines

Pharma GCCs are strengthening India's innovation system in two reinforcing ways: by deepening the scientific capabilities that enable India to play a greater role in global innovation, and by connecting the Indian market more closely with global development and access pathways. These strengthen India's position both as a contributor to innovation and as a market for innovative medicines, while supporting improved patient access to global innovation.

Advanced global mandates deepening India's scientific and innovation capabilities

The value of the advanced mandates described in Chapter 1 extends beyond the work delivered and the high-value employment created. As India-based teams take on deeper roles in global R&D and development, they are building scientific and innovation capabilities that become part of India's broader human-capital base. Experience is accumulating in areas such as computational discovery, global drug development, regulatory strategy, evidence generation, scientific and medical content creation, and HEOR and RWE.

> Knowledge that historically sat outside India is now being built here with teams increasingly leading work across global clinical trials, regulatory filings, and product launches.
>
> GCC leader

This capability building is also extending through targeted partnerships with India's research and academic ecosystem. Initiatives involving Novartis[48], Boehringer Ingelheim[49] and Novo-MAHE (Manipal Academy of Higher Education)[50] are strengthening different parts of this base, from supporting academic research and translating scientific ideas towards application, to developing specialized expertise in areas such as pharmacometrics. The partnerships connect Indian researchers and institutions with industry expertise, funding, scientific platforms, and advanced learning opportunities, helping deepen India's research and innovation capabilities.

[48] Press Release Page | Press Information Bureau

[49] SIIC, IIT Kanpur Facilitates Launch of AMRITVA Cohort 2 to Promote Pharmaceutical Innovation and Entrepreneurship: Five Winners Awarded Grant Support under CSR-Supported Initiative | IIT Kanpur

[50] Novo Nordisk GBS, MAHE deepens collaboration to advance pharmacometrics research in India - Express Pharma

Industry partnerships are strengthening specialized scientific and innovation capabilities in India

Build research capability	Translate research	Develop specialization
Development Pioneer Grant with NIPERs **42** faculty proposals received	**AMRITVA* Cohort 2** Boehringer Ingelheim + NIPER Raebareli + IIT Kanpur + SIIC **INR3.6 million** grant support across five projects	**Pharmacometrics capability partnership** Novo + MAHE **INR17.5 million** over five years
▪ Competitive research grant platform across all seven NIPERs ▪ NIPER Mohali faculty project selected by an independent jury and signed a grant agreement with **Novartis**	▪ Three faculty projects: INR0.8 m each ▪ Two research-scholar projects: INR0.6 million each ▪ Mentoring, regulatory guidance, IP support and market-access advice	▪ Advanced computing facility ▪ Annual support for one PhD scholar and one post-doctoral fellow ▪ 4–6 modules covering model-informed drug development, systems modelling approaching, and translational frameworks for emerging therapies

India-side capability gain | Stronger research, translation, and specialized scientific capabilities within India's academic and research ecosystem

*Alliance for Medicinal Research, Innovation, Translation and Value Acceleration

Closer global integration is strengthening India's access to innovation

The growing integration of India into global pharma operations is also bringing the Indian market closer to global development and launch pathways. Greater visibility of India's disease burden, patient needs, and healthcare context to global teams is strengthening consideration of the market along with other countries. GCC teams are also supporting specific stages of the access pathway: participation in global clinical programs provides eligible patients access to investigational therapies; regulatory teams support Indian submissions and health-authority interactions; and collaboration with local affiliates helps adapt global digital, data, and commercial solutions to Indian market and patient needs.

> GCC regulatory teams support the local affiliate on Indian submissions and health-authority responses.
>
> GCC leader

> GCC teams also work with the India commercial organization. This creates opportunities to develop digital, data, and commercial solutions for Indian market needs.
>
> Global sponsor

> India teams now have greater visibility of global launch pipelines and are also working to improve access to healthcare and medicines. Earlier, medicines launched globally could take three to four years to reach India; in some cases, that gap has narrowed to three to four months.
>
> GCC Talent leader

4. Ecosystem strengthening: Extending global capability across India's life-sciences network

The partnerships highlighted earlier in this chapter show how pharma GCCs are connecting with universities and research institutions to strengthen talent, scientific, and innovation capabilities. Their ecosystem impact extends further as GCCs enable new points of connection between global biopharma and India's clinical research network, startups, CRO/CRDMOs, technology firms, and other specialized partners. These interactions expose ecosystem participants to global requirements, expertise, and opportunities for collaboration, while creating stronger pathways for Indian capabilities and innovation to connect with global enterprises.

> GCCs are increasingly acting as hubs for external R&D, with India-based scientists managing partnerships with CROs and CRDMOs. Having this capability on the ground is enabling companies to work more extensively with Indian partners and bring more R&D work into the local ecosystem.
>
> GCC leader

Clinical research partnerships strengthening institutional capability

The National Institute of Pharmaceutical Education and Research (NIPER) Raebareli–AstraZeneca partnership, for example, is to strengthen India's clinical research infrastructure and expand participation in global clinical trials. The partnership focuses on strengthening 25 clinical-trial sites, in emerging locations beyond tier 1 through site assessment, mentoring, workforce training and certifications, ethics and safety documentation, site readiness, and global knowledge exchange. By building capability at the site and workforce level, such industry-led efforts complement the broader national push to expand India's clinical-research infrastructure, including through Biopharma SHAKTI (Strategy for Healthcare Advancement through Knowledge, Technology, and Innovation). These developments can broaden the network of institutions equipped to participate in high-quality clinical research[51].

> Biopharma SHAKTI creates an opportunity to build reliable trial sites beyond the major metros. Industry expertise can help train site personnel, strengthen data robustness and create certified clinical-research capability.
>
> Pharmaceutical Education & Research leader

Startup partnerships creating pathways to enterprise adoption and scale

Pharma companies and GCCs are also connecting Indian startups with global enterprise problems, domain expertise, and pathways for validation. Engagement models range from challenge programs and incubation to mentoring, regulatory guidance, and enterprise pilots. Where solutions demonstrate value, GCC connections can provide a route beyond a standalone pilot into broader functions, markets, or global enterprise networks.[52,53,54,55]

[51] Press Release Page | Press Information Bureau, NIPER Raebareli & AstraZeneca Partner to Expand Clinical Research
[52] Merck Uptune Startup Collaboration Program.pdf
[53] NEST - Nurturing Excellence, Strengthening Talent | Novartis India
[54] INDovation: Healthcare innovations made in India | Pfizer India
[55] AstraZeneca's A.Catalast initiative

Startup partnerships create pathways from idea to enterprise and patient impact

Discover Healthcare challenges	De-risk Funding + mentoring	Validate Prototype + market access	Scale Enterprise/patient impact
Startup collaboration **Merck Uptune**	**Funding of €100k each for up to 5 startups**	▪ Digital health, life-science, cell and gene therapy tools, assays, manufacturing tech ▪ Mentoring from Merck experts across research, business development, strategy and finance	
Challenge + talent **Novartis NEST**	**INR0.8 million prize pool**	▪ AI/ML healthcare use cases with expert mentoring ▪ Leadership pitches, PPIs and co-creation potential	
Incubate + commercialize **Pfizer INDovation**	**First edition** ▪ 9 innovators incubated ▪ 19 IP filings supported	▪ In partnership with AIM-NITI Aayog, Social Alpha and IIT Delhi's FITT ▪ Support healthcare innovations prototype toward market launch ▪ Funding, incubation, IP and market-access support	
Open innovation + scale **AstraZeneca A. Catalyst**	▪ 20+ innovation hubs globally ▪ India hub established in 2019	▪ Supported >27 startups ▪ Project Heart Beat with Tricog: 17k+ patients reached, 8k+ abnormal cases detected; 9k+ lives saved	
India-side capability gain	Startups gain domain context, enterprise validation, commercial pathways and routes to patient impact		

> We share business challenges with startups, learn from their solutions and connect promising ideas with leadership. When a solution works, the GCC can become a pathway to enterprise adoption and scale.
>
> GCC Enterprise Functions leader

> GCCs can help young health and life-sciences companies understand what is required to compete globally — how to make a solution relevant and navigate regulatory pathways.
>
> GCC Digital & Technology leader

Platforms such as the FICCI–Lilly Bharat Life Sciences Awards further extend ecosystem effect beyond startups. The program provides recognition and grant support across scientists, institutions, collaborative innovation and startups, widening the channels through which promising life-sciences innovation can gain funding and visibility[56].

Broader ecosystem support

Bharat Life Sciences Award (BLSA)

FICCI + Lilly

INR70 million

grant support across award categories

- Recognizes scientific excellence and innovation across researchers, institutions and startups
- Six honours across five award categories
- Combines recognition with grant support
- Supported by Office of the Principal Scientific Adviser to the GoI, the DoP, BIRAC, and Invest India

[56] Bharat Life Sciences Award 2026 | FICCI & Lilly India

Capability and experience diffusing across the life-sciences network

The ecosystem multiplier also operates through the movement of people, knowledge, and practices across organizational boundaries. Professionals move among GCCs, domestic pharma companies, CRO/CRDMOs, technology firms, and startups, carrying experience of global clinical, regulatory, quality, and digital environments into different parts of the life sciences network. Over time, this helps broaden the pool of organizations and professionals familiar with global operating standards and complex international work. Life Sciences Skill Development Council's (LSSDC) 2023 skill study identifies more than 300 job roles across 28 life-sciences occupations, with areas such as R&D, pharmacovigilance, supply chain and engineering spanning multiple subsectors. This provides a tangible labor-market base for experience to circulate[57].

> People with deep global experience do not remain in one GCC forever. Some join core pharma companies, some build startups or service organizations, ultimately benefiting the wider local ecosystem over time.
>
> GCC Leader

A stronger ecosystem reinforces India's attractiveness for higher-value global mandates

These effects reinforce one another. As pharma GCCs increase their demand for specialized scientific, clinical, technology, and innovation capabilities, ecosystem participants have greater incentives to develop relevant specialization and capacity. Research institutions can deepen industry collaboration; clinical networks can build global-research capability; startups could gain clearer enterprise problem statements and routes to validation; and specialist service providers can develop expertise for increasingly complex work.

A stronger ecosystem, in turn, can increase the range and depth of capabilities that global companies can access from India. This creates a reinforcing cycle: deeper global mandates strengthen the surrounding ecosystem, and a more capable ecosystem increases India's ability to attract and support the next generation of higher-value mandates.

5. Broader India value: Extending impact beyond business and employment

Beyond their contribution through investment, employment, capability building, and innovation, pharma GCCs and their parent organizations are also contributing to societal priorities in India. Initiatives across community health, public-health innovation, workforce inclusion, and sustainability illustrate how global companies are applying their expertise, partnerships and investment to locally relevant challenges.

Health initiatives are extending prevention, awareness and access

Several global pharma companies are applying their disease expertise and partnerships to community-level prevention, awareness and healthcare access.

Prevention and youth health – AstraZeneca Young Health Programme[58]

- Focuses on Non-Communicable Disease (NCD) prevention among young people, particularly underserved communities
- The program has delivered health information to 475,000+ young people in Delhi, Bengaluru and Chennai since 2010

Diabetes education and primary-health outreach – Sanofi[59]

- KiDS (Kids & Diabetes in Schools) provides diabetes education and engagement for children, teachers and parents; Sanofi reports 400,000+ children and families reached across 2,500 schools in Goa and Uttar Pradesh.
- Separately, 21 Mobile Medical Units across 11 districts in Maharashtra support NCD awareness, screening and referrals.

Beyond the community-health programs, industry participation is also supporting innovation-led approaches to public health. For instance, Novo Nordisk Foundation's 'Healthier India programme' is designed as a challenge-based platform focused on health equity and the burden of cardiometabolic disease among vulnerable populations. Implemented by Foundation for Innovation and Technology Transfer (FITT), the startup incubator at IIT Delhi, with support from Atal Innovation Mission as the government

[57] LSSSDC – Life Sciences Sector Skill Report 2023

[58] AstraZeneca's Young Health Programme completes a decade in India; Impacts More than 4.75 lakh young lives

[59] https://www.sanofi.com/en/india/sustainability/enabling-access-to-health

partner, and AIIMS New Delhi as the clinical partner, it supports young innovators and formalized startups through three-month pre-incubation and 12-month accelerated-incubation tracks.[60]

> There is an opportunity for GCCs and local affiliates to work together on patient experience, early detection, use of health data and other locally relevant healthcare challenges, drawing on practices from markets around the world.
>
> GCC Digital & Technology leader

Women-focused initiatives widening pathways into the workforce

Women account for around 40%[61] of India's wider GCC workforce. Targeted initiatives are widening pathways for women to enter and re-enter the workforce. For instance, programs from Pfizer and Takeda address different stages of the career journey, from combining education with early work experience to supporting women returning after career breaks.

Creating pathways for women to the workforce

Hands-on training - Learn and earn

Pfizer + Gandhi Institute of Technology and Management (GITAM) University

Women-only program combining a BSc Chemistry degree with three years of pharmaceutical manufacturing experience

Takeda ICC India–KDEM – Return to work

Woman@work (W@W)

Program designed to upskill women returning after career breaks and create pathways back into employment

Source: Pfizer, Takeda

GCCs creating high-quality workplace environments

Pharma GCCs are also providing India's workforce with workplace environments that emphasize employee development, inclusion, wellbeing and experience.[62]. This focus is reflected in external workplace recognitions received by several leading GCCs in the sector. For example, Novo Global Business Services has received Best Place to Work recognition, while AstraZeneca has been recognized by the Top Employers Institute.[63],[64]. Such independent recognitions provide tangible evidence of the sustained emphasis Pharma GCCs are placing on employee development, inclusive cultures, supportive workplaces and employee experience.

Broader contribution to environmental and community resilience

A good illustrative initiative is AstraZeneca's commitment of US$71 million to its 30-year Regeneration Meghalaya project under its global AZ Forest program, which aims to plant and maintain an estimated 64 million plants and trees and support restoration across 22,670 hectares. The program combines landscape regeneration with biodiversity and soil conservation, catchment-health benefits and sustainable livelihood opportunities for farmers[65].

[60] Healthier India - Novo Nordisk Fonden

[61] Global Capability Centers: GCC workforce in India to reach 3 million by 2030, tier 2 cities to lead, ETHRWorld

[62] India's GCCs lead in empowerment and inclusion, driving employee-centric growth

[63] Novo Nordisk Global Business Services earns the Best Place to Work certificate in India for 2023 | Best Places to Work Program

[64] AstraZeneca Pharma India Limited | Top Employers Institute

[65] AstraZeneca commits $71 million to AZ Forest India project to fund the country's largest biodiversity restoration project, in support of climate action and human health

Closing perspective: From global capability to national value

Pharma GCCs are already creating value across five connected dimensions: economic contribution, high-value employment and talent development, innovation capacity and access, ecosystem strengthening, and broader societal value. These impacts show how the GCC model is evolving beyond scale and service delivery, embedding global capabilities more deeply in India's talent, innovation and life-sciences ecosystem.

The next opportunity is to build on this foundation through deeper global mandates, stronger integration with India's innovation and healthcare ecosystem, and closer alignment with national priorities. Chapter 3 looks ahead to the future value pools India can capture, and the role pharma GCCs can play in advancing the Viksit Bharat ambition.





CHAPTER 3

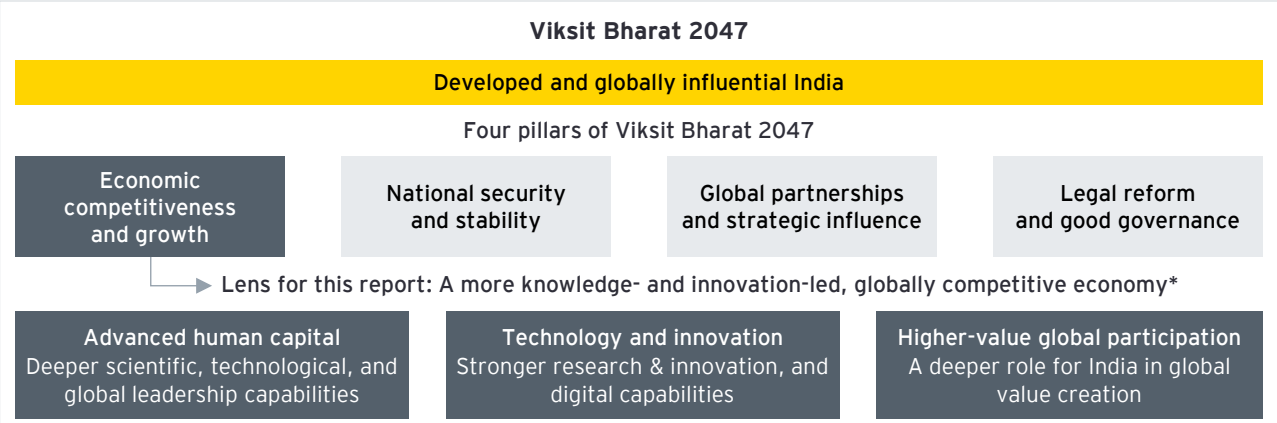
Building the next frontier:

Pharma GCCs in India's journey to Viksit Bharat

India is building on sustained economic momentum. The World Bank projects growth of 7.1% in FY27 and describes India as one of the world's fastest-growing major economies and a key contributor to global growth[66]. Looking towards 2047, the opportunity is to translate this economic momentum into a more advanced and globally competitive economy.

Viksit Bharat: Moving towards global leadership

Viksit Bharat sets a broader ambition for India to become a fully developed and globally influential nation by 2047. A 2025 NITI Aayog working paper frames this ambition across four interconnected pillars[67]. For this report, the most relevant lens is economic competitiveness, particularly India's transition towards a more knowledge- and innovation-led, globally competitive economy, underpinned by advanced human capital, stronger research and innovation capabilities, and deeper participation in global value creation.



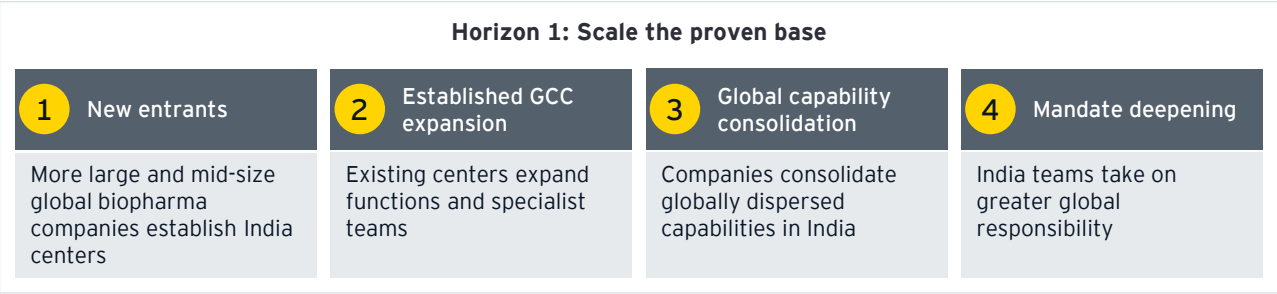
*EY analysis

Sources: PIB, 2024: India aspires to reach a US$30tn economy by 2047 | NITI Aayog, 2025: Strategic Imperatives for Viksit Bharat @2047

Pharma GCC growth: Scaling the proven base and opening new value frontiers

Pharma GCCs have a distinct role to play in this next phase. As global biopharma companies deepen their presence in India, the opportunity is not only to expand the scale of the sector, but to increase the sophistication and strategic value of the mandates delivered from India.

This creates two complementary horizons for growth. The first is to scale the proven base: attract new large and mid-sized global biopharma entrants, expand established centers, consolidate capabilities that remain distributed across global locations, and deepen existing mandates. The second is to open new value frontiers that deepen the strategic role India plays within global biopharma.



Sources: PIB GCC outlook to 2030 | ETPharma / Healthark LSHC GCC outlook | OPPI-EY primary research

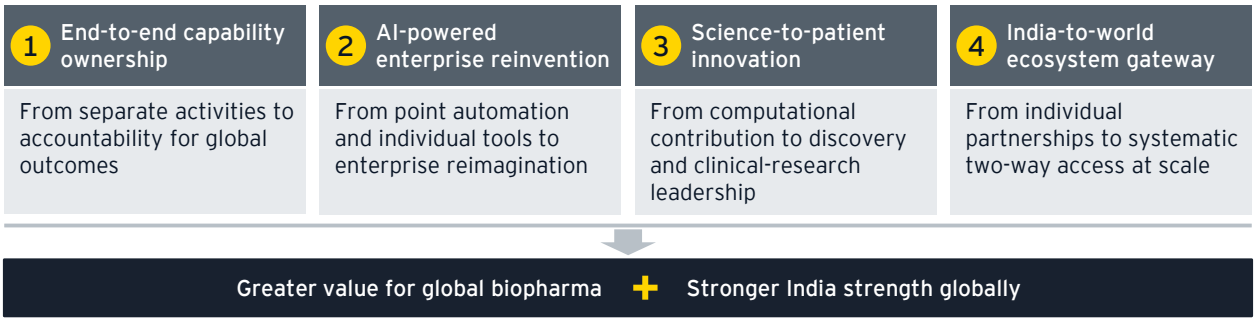
[66] World Bank Group, India Development Update - October 2026
[67] NITI Aayog

Scaling the proven base will extend the benefits already evident today. The second horizon represents a more fundamental shift: expanding the role India plays within global biopharma and opening new sources of value for both global enterprises and India.

Horizon 2: Four future frontiers for pharma GCCs

This more fundamental shift is reflected in four future frontiers that illustrate how the strategic role of India-based pharma GCCs could evolve.

Horizon 2: Four future frontiers of the pharma GCC



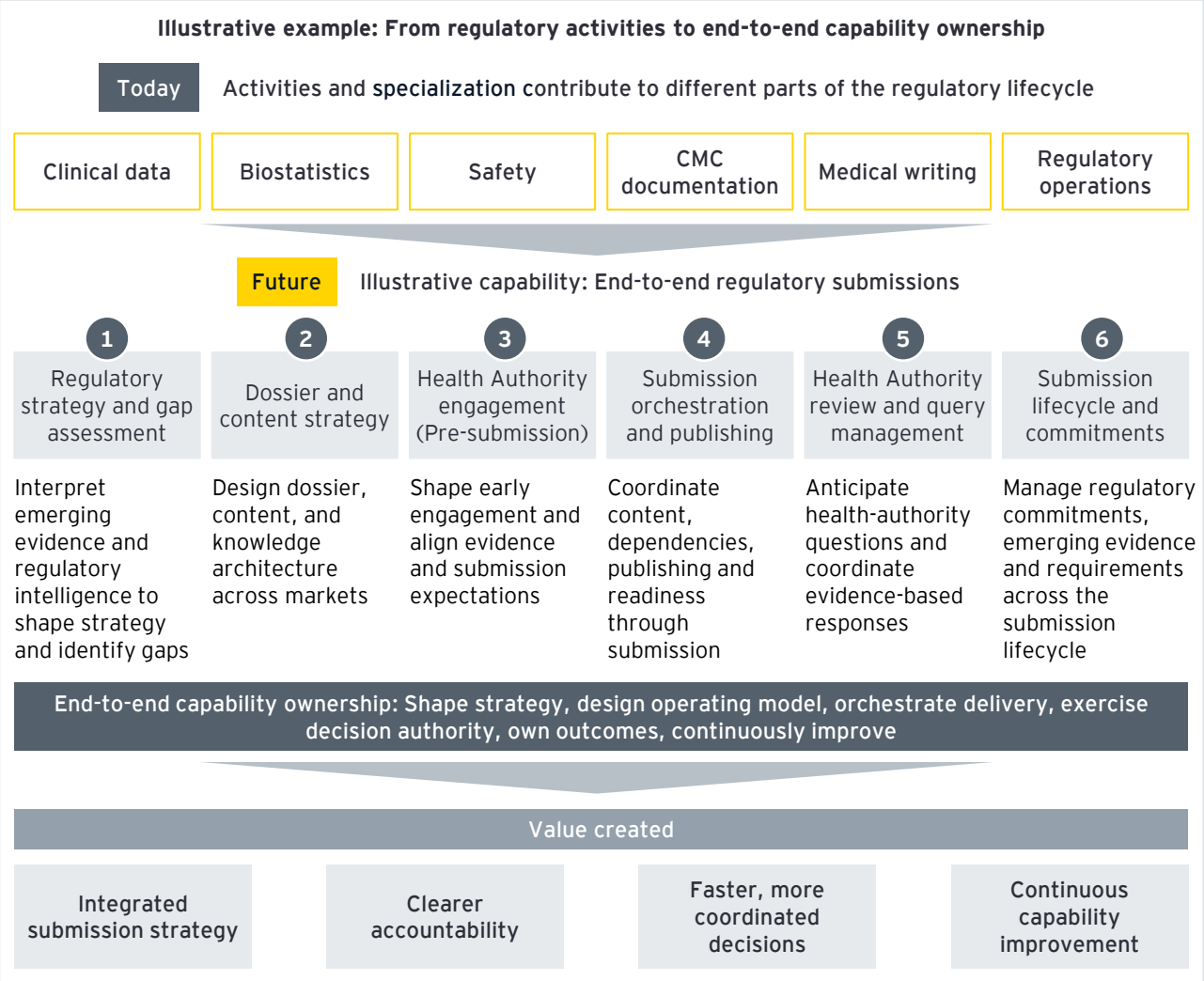
Sources: Chapter 3 synthesis | OPPI–EY primary research

Frontier 1: End-to-end capability ownership

The first frontier is to expand the unit of accountability: from delivering a set of activities or components of a process to anchoring a defined capability end to end. That capability could center on an asset, a therapy area, a platform, or a defined process within a function. Leading GCCs are already demonstrating elements of this model; the next frontier is to extend such ownership across the capability lifecycle, from shaping strategy and designing how the work is delivered to orchestrating execution, improving the capability over time and being accountable for defined outcomes.

> The future is global work end to end, owned from India — including areas such as regulatory submissions and data management.
>
> Global sponsor

> The opportunity is to bring individual activities together into an end-to-end capability around an asset, therapy area or process, with India taking greater responsibility for strategy, delivery and outcomes.
>
> GCC Digital & Technology leader



Sources: OPPI–EY primary research | Illustrative future state; not a current company model

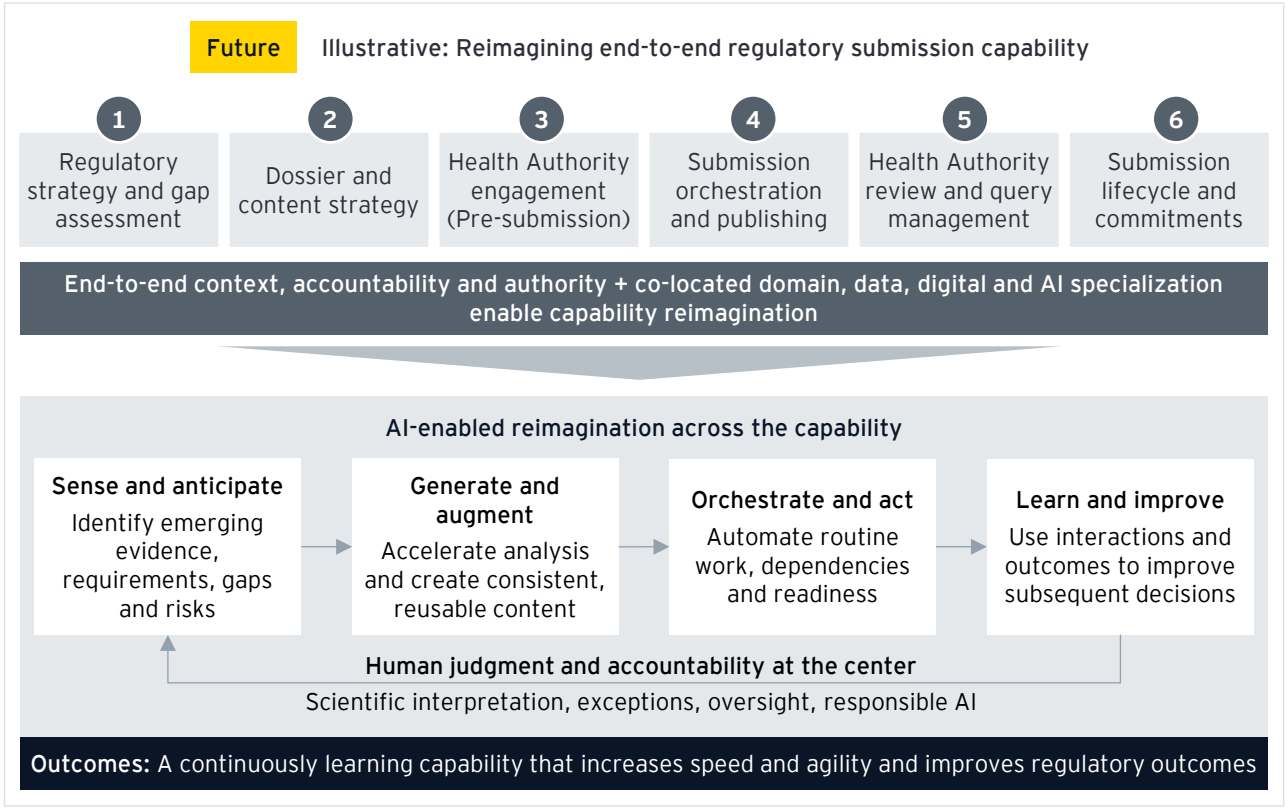
The regulatory example illustrates one application of this model; the same principle can extend to different types of capabilities across the enterprise, including an asset-specific capability, an enterprise data platform, a medical-content or commercial-insights capability, or a global supply-planning process. The common denominator is that India shapes how the capability operates, connects the activities and stakeholders required to deliver it, and takes accountability for its performance and outcomes.

Frontier 2: AI-powered enterprise reinvention

As GCC mandates become more integrated and end to end, India teams gain visibility across the capability, its interdependencies and outcomes, together with greater scope to reshape how the work is organized. This combines with another structural advantage of the GCC model: the co-location of deep domain expertise with data, digital, and AI talent. These create the conditions to redesign workflows and decision pathways around the outcomes being delivered, rather than layering technology onto existing ways of working.

The ambition is enterprise reimagination. AI is already being applied in parts of scientific, regulatory, clinical, safety and commercial work; the next frontier is to move beyond individual applications and use AI to reimagine capabilities end to end, progressively changing how work, knowledge, and decisions come together across the enterprise.

The regulatory-submission example below illustrates what this shift from task-level AI to capability reimagination could look like in practice.



Sources: OPPI-EY primary research | Illustrative future state

> We are running all processes in the GCC with oceans of data moving vertically – customer data, patient data, clinical trial data, pharmacovigilance data. The opportunity is to pull it horizontally across functions and turn it into meaningful insight. Opportunity also is to implement AI almost everywhere and increase the speed of everything we do.
>
> GCC leader

> The GCC can bring business understanding, domain expertise, data and AI capability together to reimagine how work gets done, and deliver better business outcomes.
>
> GCC Digital & Technology leader

> The co-location of functional and domain expertise with data and AI capabilities creates a unique opportunity to transform how work gets done, while keeping humans in the loop.
>
> Global sponsor

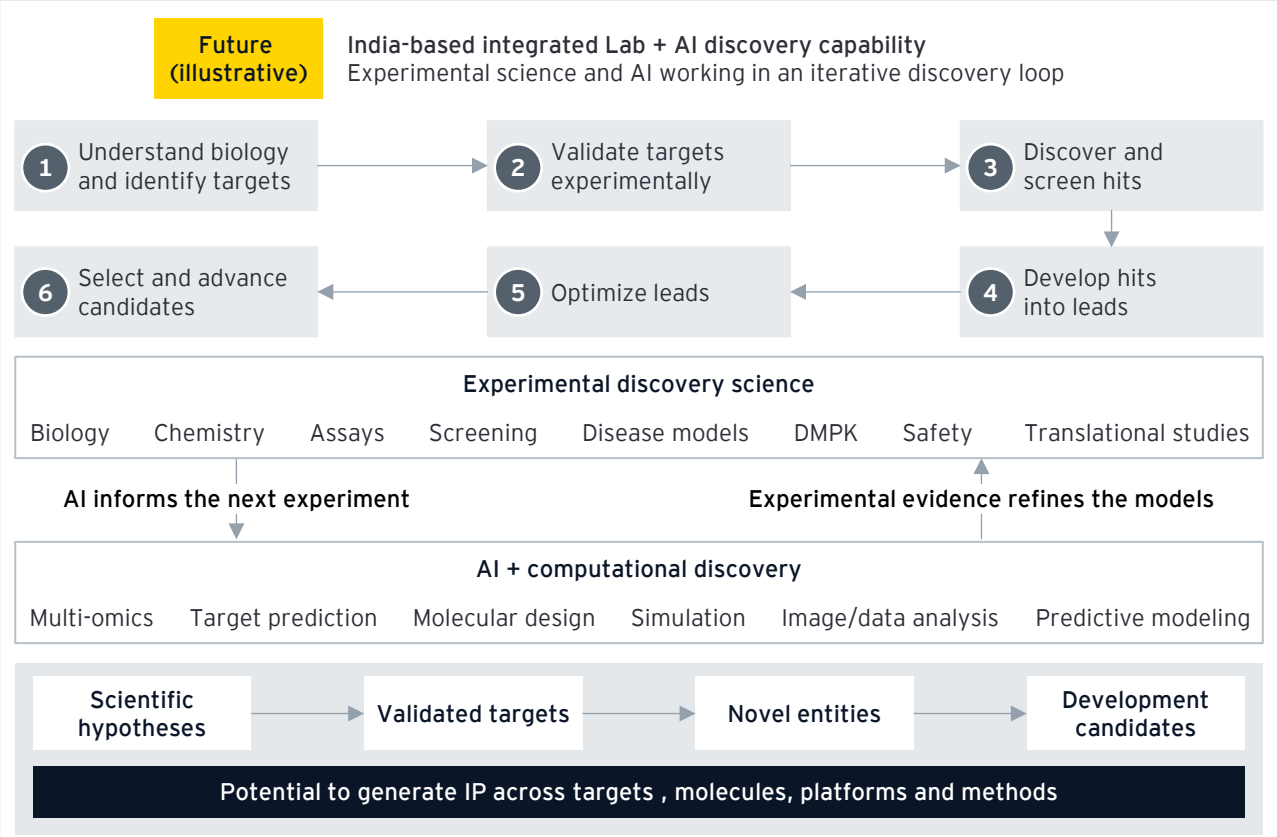
Frontier 3: Science-to-patient innovation

The third frontier is to deepen India's role across the science-to-patient journey, moving closer to where innovative medicines are discovered, developed, and brought to patients. India centers start from different positions across this continuum, creating distinct opportunities in discovery and clinical development.

Discovery: Connecting computational strength with experimental research

India-based teams are already building depth in computational science, data, and AI across drug discovery. The next opportunity is to connect these strengths with experimental research in India, creating a tighter loop in which computational insights guide experimentation and laboratory evidence continuously informs subsequent hypotheses and models.

This integration could enable India to play a deeper role in generating and validating scientific hypotheses, targets and molecules, strengthening the potential for innovative drug discovery, scientific leadership, and intellectual property to originate from India. The illustrative model below shows how experimental and computational capabilities could come together across the discovery cycle.



Early signals of this direction are visible through different models of R&D investment in India. Novartis has established technical R&D activity at Genome Valley supporting development of new chemical entities[68]. Amgen has announced a Science and Innovation Center in Genome Valley, expected to be operational in 2027, bringing together discovery chemistry, drug metabolism and pharmacokinetics, precision medicine, data and technology within its global R&D network[69]. Global biopharma company BMS has an integrated discovery and early-development partnership with Syngene in Bengaluru, Biocon Bristol Myers Squibb Research & Development Center (BBRC) [70,71]. While these represent different operating models, together they illustrate the growing depth of scientific activity in India on which a more integrated discovery model can build.

Early steps towards the future of drug discovery in India

Integrated discovery at scale	Deep scientific capability	Lab + Technology convergence (planned)
BMS–Syngene	Novartis	Amgen
▪ Target identification ▪ Lead discovery and optimization ▪ Clinical biomarkers	Technical R&D supporting pharmaceutical development of new chemical entities	Experimental science + discovery chemistry + DMPK + precision medicine + data/technology
10 drug candidates produced for further studies	**350+ scientists in Genome Valley**	**Science & Innovation Center expected in 2027**

Sources: BMS BBRC | Novartis India Development Hub | Amgen Science & Innovation Center

[68] Development Hub in India | Novartis India
[69] Amgen to open New Science & Innovation Center in Genome Valley, Hyderabad
[70] Biocon Bristol Myers Squibb Research & Development Center (BBRC) - BMS Bangalore - Bristol Myers Squibb
[71] Our Research And Development Centers | Syngene CRO

> India already has many of the ingredients, from experienced pharma talent and technology institutions to biotech companies, hospitals, and scientific institutes. The next step is to bring these capabilities together around end-to-end research programs from India.
>
> GCC leader

> India has the infrastructure to support wet-lab capabilities, and there are already examples showing that drug-discovery work can be done here.
>
> GCC leader

> We are seeing growing engagement between pharma companies and specialized technology-led drug-discovery players in India. Once a few successful models demonstrate what is possible here, I expect that momentum to accelerate.
>
> State Life Sciences Ecosystem leader

Clinical research: From global capability to a stronger research footprint in India

India-based pharma GCCs already play a substantial role in global clinical development, supporting programs across markets through capabilities spanning clinical operations, data management, biostatistics, statistical programming, medical writing, regulatory support, and increasingly strategic roles around assets and programs. India-based teams also work with CRO/CRDMO partners as part of globally distributed R&D delivery.

The next opportunity is to connect this global clinical-development capability more directly with India's clinical-research ecosystem, enabling a greater share of global clinical research itself to be conducted in India. The country brings together a large and diverse patient population, scientific and clinical talent, established hospitals and investigators, and a growing research-services ecosystem. Pharma GCCs can provide an important bridge between these capabilities and their companies' global clinical-development organisations, helping bring more global research programs into the Indian clinical ecosystem.

BMS: Expansion of India's participation in global clinical development

- Active studies: expanded from **18 to 44**
- Active trial sites: expanded from **29 to 167**
- Randomized/enrolled participants: **36 to nearly 300**
- Period: October 2024 to October 2026

This growth spans studies BMS runs directly and studies delivered with outsourced partners, enabling more patients across the country to participate in global research on new medicines alongside patients in other regions. It also helps build India's clinical research capabilities: experienced investigators, high-performing sites, and operational expertise that benefit India's wider life sciences ecosystem.

> There is a real opportunity to expand early clinical development in India, including first-in-human and Phase I studies, and deepen the country's clinical-research ecosystem.
>
> Global Policy leader

> GCC clinical capabilities can increasingly connect with doctors, hospitals and healthcare providers, helping bring more clinical research to India.
>
> Global sponsor

Deeper participation in discovery and clinical research could strengthen India's position across the science-to-patient continuum, building scientific and innovation capabilities, attracting greater R&D activity and investment, and creating more opportunities for advanced scientific work. The dividend could extend further: stronger research careers, greater representation of Indian patients and health needs in global research, and earlier access to innovative therapies.

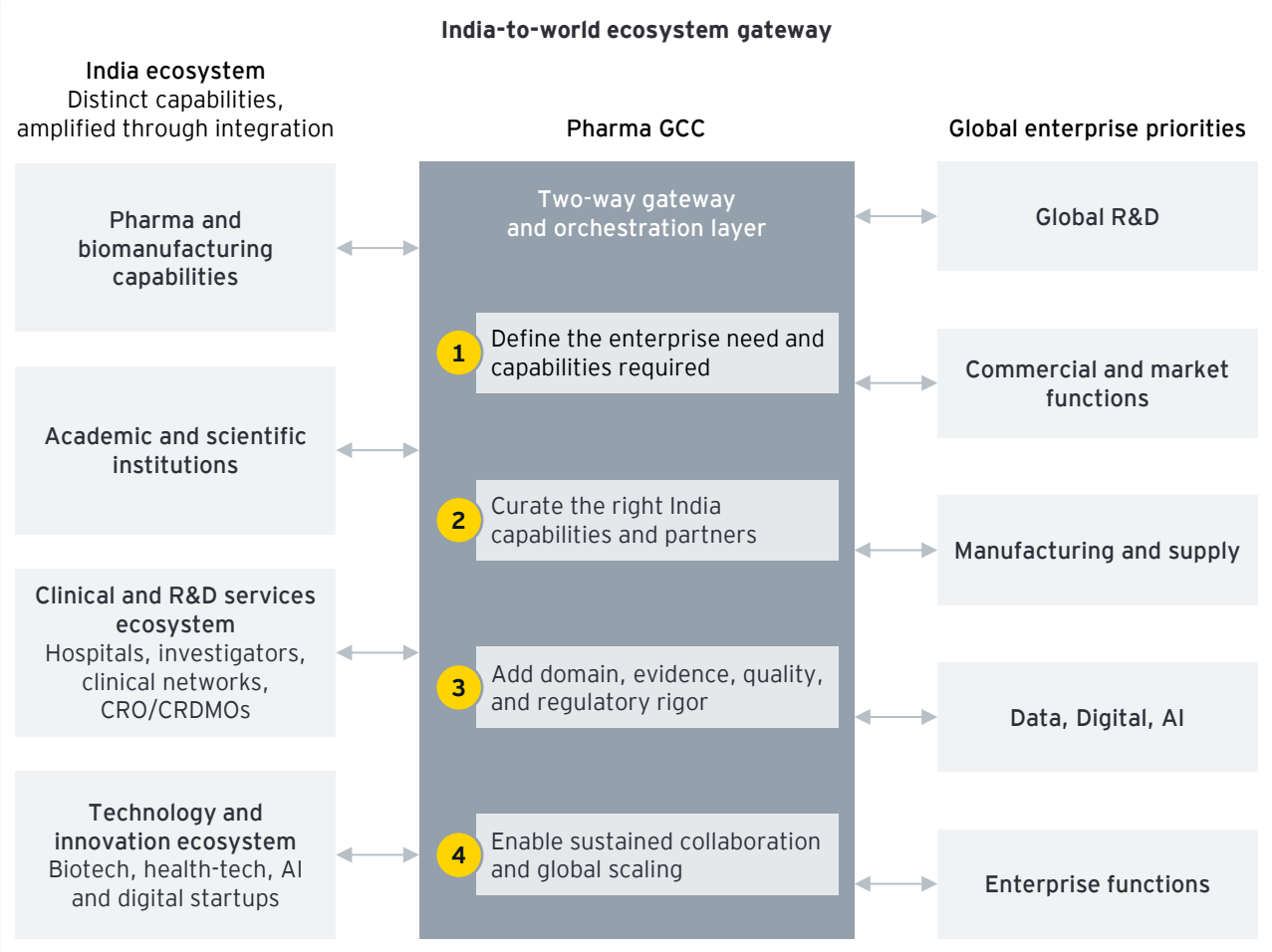
Frontier 4: India-to-world ecosystem gateway

The fourth frontier extends the GCC's role beyond its organizational boundaries. Pharma GCCs can become a two-way gateway between global biopharma and India's wider ecosystem, while acting as an orchestration layer that defines the capabilities required, identifies the right Indian partners, and creates pathways for proven innovation into global networks.

India's advantage lies in the coexistence at scale of pharmaceutical and biomanufacturing capabilities, CRO/CRDMOs, scientific institutions, hospitals, digital and AI talent, and a growing innovation ecosystem. These capabilities are relevant individually; the larger opportunity is to make them more visible, accessible and powerful as an integrated ecosystem.

Elements of this model already exist through academic partnerships, startups, programs and clinical collaborations. The frontier is to make ecosystem engagement more systematic and demand-led: global enterprise problems enter India through the GCC, which identifies and connects the right scientific institution, startup, hospital, CRO/CRDMO or technology partner.

The gateway can work in the other direction as well. For Indian startups, research institutions and clinical partners, the GCC can provide more than access to a one-off pilot: it can help translate promising capabilities into enterprise-ready solutions and, where they demonstrate value, create pathways to wider global adoption.



> GCCs can help young health and life-sciences companies become globally relevant, navigate regulatory and enterprise requirements, and build pathways towards wider adoption.
>
> GCC Digital & Technology leader

> The strongest ecosystem partnerships will move beyond transactional engagements. They will bring partners together around a defined business or healthcare challenge, test solutions quickly, and create a path for what works to scale across the enterprise.
>
> GCC leader

The larger prize for India is an ecosystem multiplier. As pharma GCCs channel global demand into startups, research institutions, hospitals, CRO/CRDMOs, and technology firms, their direct, indirect and induced economic impact could expand across a much wider value chain. In turn, stronger ecosystem players create deeper capabilities, attract new investment and global opportunities, and make the ecosystem itself more competitive, creating a reinforcing cycle of capability, scale, and global demand.

One future vision, multiple sources of value for India

Taken together, the four frontiers point to a larger shift in the role of pharma GCCs in India: from centers that execute increasingly sophisticated work to strategic nodes that own outcomes, reinvent how work gets done, participate more deeply in science and innovation, and connect global biopharma with India's wider ecosystem. The next phase of growth is therefore not simply about doing more from India, but about expanding what India can own, create, and influence.

That shift can create its own momentum. As more consequential mandates move to India, they create the demand and confidence to build deeper talent, leadership, technology and research capabilities; those capabilities, in turn, expand what can be anchored here next. The result is a potential flywheel from scale to capability, from capability to productivity and innovation, and from there to higher-value growth, reinforcing the broader Viksit Bharat ambition.

Unlocking that flywheel, however, is a shared endeavor. Enterprises, GCCs, governments, academia, research institutions, and ecosystem partners each shape a different part of the environment in which the next frontier will develop. Coordinated action across them can turn individual advances into a larger national advantage, strengthening India's ability to compete not only as a destination for global capability, but as a source of talent, science, innovation, and enterprise value for the world. The next chapter sets out the priorities for making that transition possible.


80
60
40



CHAPTER 4

Realizing the vision:

Enabling the next phase of value creation

The next phase of pharma GCC value creation will require the foundations to keep pace with the ambition. As the two growth horizons outlined in Chapter 3 unfold, mandates will deepen and GCCs will move into more strategic, technology-led, and science-intensive roles. India will need to strengthen the enterprise, talent, digital, research capabilities, and operating conditions that enable these shifts to scale.

Primary research points to five interdependent priorities spanning action within enterprises and across the wider ecosystem: preparing GCCs for larger global mandates; building future-ready talent and leadership; sustaining India's AI and digital advantage; strengthening the science-to-patient innovation environment; and creating a more predictable and competitive operating environment.

> India cannot assume that global organizations will always need the country in the same way. To sustain the opportunity, the ecosystem must keep strengthening its competitive advantage.
>
> GCC R&D leader

Five priorities for the next phase of value creation (based on primary research responses)

50%	50%	42%	30%	30%
Build GCC readiness for larger global mandates ▪ Global enterprise leadership and matrix readiness ▪ Global sponsorship and decision authority	**Create a future-ready talent and leadership pipeline** ▪ Deeper domain specialization ▪ Industry readiness ▪ Industry–academia exchange ▪ Continuous reskilling	**Keep the operating environment competitive as GCCs scale** ▪ Simpler compliance for increasingly integrated GCCs ▪ Tax and transfer-pricing certainty ▪ Coordinated global promotion of India's GCC proposition	**Build the foundations for deeper discovery and clinical research** ▪ Shared scientific infrastructure and early-stage support ▪ Research-ready clinical capacity ▪ Strong scientific regulation and IP protection	**Expand India's AI and digital capability advantage** ▪ Strong AI talent and hybrid Pharma + AI capability ▪ Infrastructure foundation for AI at scale

Note: Percentages reflect the share of primary-research participants for each priority; A participant may be counted across priorities; percentages therefore do not sum to 100%. Box area is proportional to the displayed percentage

Source: OPPI–EY primary research

Priority 1: Build enterprise readiness for larger global ownership

As pharma GCCs take on larger end-to-end mandates, readiness needs to advance on both sides of the enterprise. India needs to continue building leaders with the larger enterprise perspective and global exposure required for increasingly strategic roles. At the same time, global organizations need to build on the value already demonstrated by leading India GCCs, with stronger executive sponsorship and a deliberate shift of global roles, ownership and decision authority to India.

Theme 1: Build leaders in India for global roles

As India takes on larger global mandates, leadership development needs to go beyond functional and technical depth. Future leaders need greater understanding of the global enterprise, exposure across functions and markets, and the confidence to work with and influence stakeholders across geographies. Companies can build this through cross-functional roles, international exposure, rotations, structured leadership development programs, and clearer pathways for India-based talent to progress into global roles. Several companies already provide useful models, combining formal learning with rotations, mentoring, cross-functional experience and international exposure [72],[73],[74].

[72] Learning and Development initiatives – AstraZeneca
[73] Global Rotational Development Program | Roche
[74] Career Development | Sanofi Careers

Building global leaders through learning and experience

Illustrative company practices

Roche
Global rotational development program

- 18–24 months of cross-functional project rotations
- Mentoring and tailored development across Roche's global services network

AstraZeneca
3Es framework: Education + Exposure + Experience

- Formal learning
- Real world experience

Sanofi
Mentoring + mobility + experiential learning

- Connects employees with mentors and short-term cross-team assignments
- Provides pathways to internal mobility and international opportunities

Sources: AstraZeneca Learning & Development | Roche Global Rotational Development Program | Sanofi careers | OPPI-EY primary research

Business schools can complement enterprise-led development by bringing greater global enterprise context into management education through industry-linked curricula, global case studies, international exposure, and opportunities to work on real enterprise challenges. This direction is already taking shape. IIM Bangalore's Leadership Programme to Build Resilient GCCs, co-created by faculty and industry leaders, develops strategic thinking and leadership for globally matrixed organisations[75], while ISB Executive Education offers dedicated learning solutions to strengthen GCC leadership pipelines and support their evolution into higher-value strategic units[76].

> India already has a strong talent pool. The next step is to complement technical skills with enterprise perspective, using assignments and global exposure to build the next generation of global leaders from India.
>
> Global sponsor

> India has exceptional technical talent. Building greater confidence to contribute in global forums, navigate cultural differences and challenge constructively will help translate this strength into greater global leadership impact.
>
> Global sponsor

> GCCs in India can become a source of global leaders for the wider enterprise. Experience working across functions and geographies builds capabilities that are increasingly valuable for leadership roles elsewhere in the organization.
>
> Global leader

Theme 2: Expand global ownership and decision authority

Leading pharma GCCs in India have continued to demonstrate their ability to take on complex global capabilities and end-to-end responsibilities. The next opportunity for global organizations is to build on this foundation by deliberately placing larger global roles and mandates in India, supported by the ownership and decision authority required to deliver them effectively. Sustained sponsorship from global leadership can help accelerate this shift and ensure that responsibility and authority evolve together.

> For GCCs to move beyond execution, greater ownership and decision-making authority need to be based in India along with the capabilities responsible for delivering outcomes.
>
> Global sponsor

> As GCC teams solve broader business problems and demonstrate the value of co-located capabilities, global businesses are increasingly comfortable placing more core roles in India.
>
> GCC leader

> For GCCs to deliver their full potential, they should have a seat at the table from the outset, contributing to the shaping of business missions and programs rather than primarily taking on execution later.
>
> GCC leader

[75] Leadership Programme To Build Resilient GCCs - Executive Education IIM Bangalore
[76] Learning Solutions for Global Capability Centres | ISB

Priority 2: Create a future-ready talent and leadership pipeline

India's young population provides an enduring foundation for its talent advantage, with over 65% of the population below the age of 35[77]. This demographic strength, combined with India's deep life-sciences talent base, continues to underpin the pharma GCC proposition. The next phase of growth will require the talent base to evolve in two distinct ways: greater depth in specialized pharma and scientific domains as mandates become more complex, and stronger industry readiness so that emerging talent enters the workforce with greater practical understanding of how knowledge is applied on the job.

Theme 1: Deepen domain and specialist capability

As pharma GCCs take on more specialized mandates, demand continues to grow for talent with advanced scientific and pharmaceutical domain expertise. Beyond strong functional knowledge, many of these roles require specialization at the product, asset, or therapy-area level, as well as specialist capabilities in disciplines such as clinical development, biostatistics, pharmacometrics, and regulatory science.

India already has strengths across several of these areas; the next step is to expand the scale and depth of these specialist pools. Focused postgraduate and doctoral pathways, stronger industry linkages in specialist programs, and continued development of experienced talent can help build capability at the depth required for increasingly complex mandates. New models are beginning to show how advanced education can be more closely connected with industry research and capability needs.

Telangana Life Sciences + BITS Pilani + RMIT University

Model

An industry-integrated PhD and research program launched in 2026 to bring academic expertise and industry insight together in life sciences

Designed to strengthen research-led innovation and workforce capability

Approach

1. **Real industry challenges**
   Aligns Doctoral research with challenges relevant to life-sciences organizations
2. **Global academic linkages**
   BITS Pilani and RMIT connect Indian research pathways with global academic specialization
3. **Industry-academia exchange**
   Connects life-sciences companies and GCCs more directly with researchers and institutions

Sources: Telangana Life Sciences, BITS Pilani & RMIT University Jointly Launch Industry-Integrated PhD Programme

> Greater domain knowledge and specialist experience, including product-, asset- and therapy-area expertise, becomes increasingly important as more mature roles move into GCCs.
>
> GCC Commercial leader

> In areas such as statistics for clinical development, building the required domain depth can take significant additional training and exposure.
>
> GCC R&D leader

Theme 2: Build industry readiness through practical exposure

Primary research highlights a persistent gap between academic knowledge and industry readiness. Participants noted that companies can spend six to nine months after hiring to develop the practical understanding that graduates need to contribute effectively. Bridging this gap requires a stronger focus on practical application and exposure to real industry environments as part of the education journey.

Four mechanisms can help translate academic knowledge into greater industry readiness:

[77] India's Demographic Dividend: A Global Gamechanger | IBEF

- **Bring industry into the learning experience:** Embed real company problems, cases, practitioner inputs, and applied projects into curricula and assessment.
- **Build progressive work exposure:** Move beyond short, end-of-course internships towards a journey that progresses from cases and simulations to live projects, longer internships, apprenticeships, and capstone work.
- **Create role-relevant practical environments:** Provide access to laboratories, simulations, and other practical settings to expose students to the equipment, processes, quality systems, clinical workflows, regulatory environments, and other conditions relevant to the roles they are preparing for.
- **Bring faculty closer to industry:** Enable faculty immersions, industry fellowships, and practitioner participation to keep teaching connected with evolving industry practices and practical capability requirements.

As discussed in Chapter 2, pharma GCCs are already contributing through internships, apprenticeships, curriculum partnerships, and other forms of industry exposure. The opportunity now is to make such engagement more systematic and sustained. Emerging models show how this integration can be strengthened from both sides: through longer-term partnerships that bring industry more deeply into academic institutions, and through structured immersion that gives faculty direct exposure to current industry practice. Karnataka's Super 100 Industry–Academia Adoption Programme[78] and AICTE's Industry Fellowship Programme[79] illustrate these two complementary approaches, as detailed in the exhibit.

Two complementary approaches for strengthening industry readiness

Institutional model brings industry into institutions

Karnataka Super 100 Industry–Academia Adoption Programme (2026 launch)

- A three-year program implemented with Karnataka Digital Economy Mission (KDEM)
- One-to-one institutional adoption framework, pairing 100 industry partners with 100 higher-education institutions

Model Moves from episodic engagement to structured, long-term institutional adoption

Real-world project engagement	Curriculum and academic alignment	Regional reach
Embeds industry-grade problem statements in learning.	Connects delivery and assessment with demand-led capabilities	Extends industry engagement to Tier 2 and Tier 3 institutions

Faculty model brings faculty into industry

AICTE Industry Fellowship Programme

A one-year, full-time immersion for faculty from AICTE-approved institutions, supported by AICTE and participating industry

Model Gives educators direct exposure to real industry environments, applications, and current skill requirements

Full-time immersion	Current industry practice	Teaching impact
Faculty work within industry for one year	Builds first-hand understanding of applied environments	Brings industry insight back into classroom learning

Sources: Government of Karnataka; AICTE Industry Fellowship Programme

[78] SKM_C30813010112540

[79] Industry Fellowship Programme Eng_0.pdf; AICTE Industry Fellowship Programme

> As businesses become more agile, the time available to make new talent productive will shrink. We need to reskill the workforce while integrating functional expertise and real-life scenarios from bachelor's level onward.
>
> GCC Enterprise Functions leader

> Future-ready curricula require future-ready faculty. Industry immersions and sabbaticals can help educators build first-hand understanding of emerging capabilities and translate that experience into teaching.
>
> Pharmaceutical Education & Research leader

> Students can work on real corporate problems throughout their education and present solutions to company leaders, building practical skills while giving companies earlier visibility into talent.
>
> Global sponsor

> Practical experience should be built into the curriculum, not left to a short internship at the end; that would reduce onboarding time and make the transition into industry more natural.
>
> GCC Regulatory leader

Cross-cutting enabler: Create a continuous industry–academia exchange

Deepening domain specialization and strengthening industry readiness, both require a more continuous exchange between industry and academia. Primary research highlights a two-sided information gap: industry may not always have visibility into specialist capabilities dispersed across India's academic network, while academic institutions, particularly colleges beyond established Tier 1 networks, often lack a clear view of emerging industry requirements and opportunities for collaboration.

A common industry–academia interface could help close this gap. GCCs and the broader life-sciences ecosystem could regularly signal emerging roles, specialist capability requirements, practical problem statements, research priorities and experiential-learning needs, giving academic institutions greater visibility into future demand and the lead time to respond through relevant programs, curricula, and practical learning opportunities.

An exchange like this could build on existing mechanisms such as LSSDC, while extending the interface to emerging pharma GCC roles, specialist capability needs, and multidisciplinary academic collaboration.

> Industry does not always know where to find the right academic capability, particularly when specialist expertise is dispersed across a much broader network of institutions. Academia, in turn, lacks visibility into future industry needs. A common interface could allow institutions to showcase their capabilities while industry signals priority talent needs two to three years ahead.
>
> Pharmaceutical Academic leader

> Industry skill requirements are changing very quickly. The talent development model needs to be much more demand-led, with industry signaling the capability it needs and the talent ecosystem responding accordingly.
>
> State Ecosystem leader

> We are not pooling our talent and academic resources effectively today. A common portal could give industry a place to signal its skill requirements two to five years ahead, while academia can respond with the capabilities it already has or needs to build. Professional councils could also help identify institutions with the relevant skill base, creating a more systematic way to connect future industry demand with the wider academic ecosystem.
>
> Science & Innovation Policy leader

Priority 3: Expand India's AI and digital capability advantage

India's digital and engineering depth has become an important differentiator of the pharma GCC value proposition. As AI becomes embedded across the pharma value chain and enterprise functions, sustaining this advantage will require more than continued growth in technology talent. The opportunity now is to combine AI and computational capability more deeply with pharmaceutical science and functional specialization, while continuing to strengthen the infrastructure and sector-specific pathways needed to develop and scale AI-enabled capabilities.

Theme 1: Build AI talent and hybrid Pharma + AI capability at scale

To support future growth, India will need both a broad and continually renewing AI talent base and a growing pool of professionals who can work across scientific, functional, and technology domains. For pharma GCCs, bringing these capabilities together can enable teams to develop, evaluate, and apply AI effectively in regulated environments.

India is already building the underlying AI talent foundation through large-scale awareness, advanced education, and wider access to practical learning, including YUVA AI for ALL[80] and IndiaAI Fellowships[81]. Hands-on infrastructure is also expanding through AI & Data Labs[82].

Building the national AI talent foundation

Yuva AI for All

Democratises AI literacy across India

- **9m+** enrolments
- **3.3m** completions *(as of 10 Nov'26)*

IndiaAI fellowships

Supports deeper academic and research pipeline

- **686** UG, PG and PhD fellows
- **178** institutions

AI & Data Labs

- **27** specialised NIELIT labs
- Target of **10,800** candidates over three years

Sources: IndiaAI FutureSkills | NIELIT IndiaAI Data & AI Labs

Building differentiated pharma capability on this foundation requires three complementary shifts:

- **Build AI fluency within pharma disciplines:** Equip scientists and functional professionals to understand, apply, and critically evaluate AI-supported work within their areas of specialization, including its limitations, risks, and implications for regulated decisions
- **Build pharma context in AI and computational talent:** Give AI engineers, data scientists, and computational specialists greater exposure to pharmaceutical science, business processes, and regulated environments so that solutions reflect the context in which they will ultimately be applied
- **Build hybrid talent by design:** Create a distinct pipeline of professionals whose learning pathways combine life sciences with computational methods, statistics, data science, and AI from the outset, rather than adding one discipline onto the other later

The hybrid-talent requirement calls for education pathways designed across disciplines from the outset. MAHE's M.Sc. in Computational Molecular Sciences provides an emerging example, combining biology and chemistry with computational modelling, scientific data, simulation, and AI/ML[83].

[80] Press Release Page | Press Information Bureau
[81] IndiaAI FutureSkills
[82] Overview of Project – India AI Dashboard
[83] M.Sc Computational Molecular Science | ₹6 LPA Highest Package | MIT Manipal

Building hybrid science and AI talent by design

Two-year postgraduate program at Manipal Institute of Technology, MAHE Science + computation + AI

Life sciences foundation
- Biochemistry and medicinal chemistry
- Computational biology
- Biology and chemistry of molecular systems

Computational methods
- Molecular modelling
- Multiscale simulation
- Programming and scientific-data analysis

AI + ML application
- AI/ML in chemical biology
- Biomolecular analysis
- Computer-aided molecular and drug design

Applied learning architecture

Computational laboratories	High-performance computing systems and scientific workstations support modelling, simulation and large-scale data analysis
Extended research and industry projects	Year-long project work can include collaborative research and applied problem statements from industry partners.
Integrated project-phase internships	Research or industry training is embedded within the project phase rather than treated as a separate short exposure

Source: FutureSkills Prime, Launch of FutureSkills Prime, Talent connect porta; Over 34 lakh candidates register on FutureSkills PRIME; 86%+ from Tier 2, 3 cities: MeitY - The HinduBusinessLinel

Along with specialized hybrid pathways, wider digital-skilling systems need to remain closely connected with changing industry requirements. FutureSkills Prime, the MeitY–NASSCOM digital-skilling initiative, provides a national model that combines emerging-technology courses with experiential learning, industry-backed credentials, academic credits, and education-to-employment pathways. Its catalogue also includes 'AI in Biopharma', providing a direct connection with the capability needs of the sector[84].

FutureSkills Prime

Digital skilling ecosystem backed by the IT industry, NASSCOM, and the Indian government

Launched in **2021**

Joint initiative by **MeitY and NASSCOM**

Bridging the industry skill gap **Up-skilling and re-skilling working professionals**

Key offerings

1. **Courses and pathways** in emerging technologies
2. **Experiential learning** with real-world use cases
3. **Hackathons and assessments** with credit assignments
4. **Industry-approved NASSCOM certifications** aligned to NOS/NSQF employability
5. **Academic credits via NCrF** for industry-defined competencies
6. **Talent connect** through internships and employment pathways

Scale and reach*

3.8m	2,800+	86%+	17	2,500+	150+
registered candidates	Courses and pathways	Candidates from tier 2/3 cities	State govt. MoUs	Academic institution/ university MoUs	Corporate partnerships

Pharma relevance: "AI in Biopharma" within the digital-learning catalogue

*data as of 10 Nov'26; NASSCOM: National Association of Software and Service Companies; MeitY: Ministry of Electronics and Information Technology; NOS: National Occupational Standards ; NSQF: National Skills Qualification Framework

Source: FutureSkills Prime, Launch of FutureSkills Prime, Talent connect porta; Over 34 lakh candidates register on FutureSkills PRIME; 86%+ from Tier 2, 3 cities: MeitY - The HinduBusinessLinel

[84] nasscom Future Skills Certification & Courses for Professionals; FutureSkills Prime | Learn Digital Skills for the Future

State-level programs can complement such national platforms by adapting skilling interventions more directly to local industry demand. NIPUNA Karnataka provides one such model[85], with employers helping shape training across AI, data science, and other emerging technologies, alongside internships, placement support and trainer development. Its relevance lies in the demand-led approach, which could be applied to the evolving digital and AI capability needs of pharma GCCs and the broader life-sciences ecosystem.

> Future GCC leaders will need hybrid skills that combine deep functional expertise, AI fluency, and the ability to translate both into enterprise transformation.
>
> Global sponsor

> Institutions need to collaborate across traditional disciplinary boundaries. Joint teaching, shared laboratories, cross-institution electives, industry-sponsored research, and co-designed credentials can connect pharmaceutical science, medicine, biology and technology around the capability combinations that future pharma roles require.
>
> Pharmaceutical Education & Research leader

Theme 2: Build the infrastructure foundation for AI at scale

As pharma GCCs take on more AI-intensive and computationally demanding work, the infrastructure supporting them will need to evolve in parallel. Advanced analytics, GenAI, computational modelling, and increasingly sophisticated scientific applications will require scalable access to compute, data-center capacity, and resilient digital infrastructure.

India enters this next phase with a significant and expanding foundation. Operational data-center capacity reached approximately 1.75 GW by H1 2026, providing a growing base for more compute-intensive workloads.[86]. Google's planned investment in the Visakhapatnam AI hub provides a further signal of the scale of infrastructure being built in the country [87].

In addition to physical infrastructure, initiatives such as BHASHINI and BharatGen point to a broader AI ecosystem and reusable digital foundations taking shape. As pharma GCCs become more AI-led, continued development of this wider enabling ecosystem will be important to support their next phase of evolution.

Google AI hub, Visakhapatnam
US$15b investment – 2026–2030

Gigawatt-scale compute	Integrated connectivity	Energy infrastructure	AI-ready ecosystem
A purpose-built data-center campus designed to add large-scale computing capacity for AI and digital services	A new international subsea gateway and expanded fiber-optic network to strengthen capacity, latency and resilience	New transmission lines, clean-energy generation and storage planned along with the data-center build-out	Infrastructure designed to support high-performance AI services for enterprises, developers and researchers

[85] Department of Electronics, Information Technology and Biotechnology - About-nipuna-karnataka, FUEL SkillTech, KDEM train 568 Karnataka students in AI, coding and employability skills - The Economic Times

[86] CBRE: India Data Center Capacity Hits 1.75 GW - COMPUTE FORECAST

[87] Press Release Page | Press Information Bureau, Our First AI Hub in India, Powered by a $15 Billion Investment

A shared formal platform for pharma GCC collaboration

The need for a more formal platform for pharma GCC collaboration emerged strongly in the primary research. As the sector matures, such a forum could bring GCCs together around a focused set of shared priorities where collective effort can create greater impact and accelerate learning across the ecosystem.

Its initial mandate could focus on two areas:

Act together: Bring collective effort to shared capability priorities, such as:

- common and emerging talent requirements
- university / academic partnerships
- other initiatives where scale can increase impact

Learn together: Create a trusted forum for centers to exchange:

- best practices and lessons learned
- standards and reusable approaches
- experience from GCCs that have already progressed into more advanced mandates

> Rather than duplicate programs at separate universities, pharma GCCs could combine effort on common talent, research, and ecosystem priorities.
>
> Global sponsor

> A community can share standards and lessons learned, help newer GCCs avoid pitfalls, and create stronger connections with talent and universities.
>
> GCC Commercial leader

> We need profound partnerships to build capabilities and create value together.
>
> GCC Medical & Portfolio leader

> GCCs can collaborate more closely and present India's collective strength in delivering value and scale.
>
> GCC Talent leader

Priority 4: Build the foundations for deeper discovery and clinical research

India has significant scientific, biotech, and clinical capabilities; translating these into a stronger base for innovative drug discovery and clinical research will require greater access to specialized research infrastructure and an environment that gives global organisations the confidence to place increasingly sophisticated R&D in India.

Theme 1: Strengthen research infrastructure and ecosystem access

Deeper R&D activity will require easier access to specialized capabilities across the discovery-to-clinical continuum, alongside a stronger base of science-led biotechs that can contribute innovation and complementary expertise.

- **Expand access to scientific infrastructure and early-stage support:** Shared wet labs, specialist equipment, incubation, proof-of-concept grants, and translational support can enable companies to test ideas before committing substantial capital and help more science-led biotechs progress promising research into viable assets. Established platforms such as BIRAC BioNEST[88] and C-CAMP[89] combine shared infrastructure, incubation, early-stage funding, and industry engagement, while newer models such as Telangana 1 Bio are extending this foundation into biologics process development and scale-up[90].

[88] BIRAC-BioNEST
[89] BIG Scheme | CCAMP
[90] Telangana launches Telangana 1 Bio to support biologics scale-up and innovation - Express Pharma

Two models strengthening the discovery-to-clinical pathway

Shared scale-up infrastructure and research-ready clinical networks address distinct gaps across the R&D continuum

Biologics development, scale-up and clinical readiness

Telangana 1 Bio (Genome Valley)

Shared infrastructure to help accelerate journey from discovery to clinical readiness with greater speed, predictability, and affordability.

2 acres Genome Valley campus	**500 L** Single-use bioreactors	**150,000 sq. ft.** Plug-and-play laboratories	**INR240 crore** Core and Thermo Fisher investment
End-to-end Process development	**Upstream + downstream** Scale-up capability	**Shared analytics** Pilot validation	**Training labs** Capability building

Designed to help start-ups and established companies validate processes, generate pilot- data and build confidence without heavy upfront investment

Clinical research readiness

ICMR-INTENT (Indian Clinical Trial and Education Network)

Integrating institutions, investigators and resources for high-quality, multicenter, regulatory-compliant trials

84 Phase II/III sites	**4** Phase I institutions	**5 ongoing clinical trials** Including a multicenter Phase I first-in-human oncology study
Network execution Multicenter trials across public and private hospitals, medical colleges and research institutions	**Capability building** Clinical-researcher and trial-manager training, data management and regulatory support	**Early-phase capacity** Specialist centers intended to bridge preclinical research and later-phase development

- **Build research-ready clinical capacity:** The priority is to improve the scientific, operational, and regulatory readiness of trial sites, particularly for early-phase and complex studies, while expanding the network to address specialist capability, therapeutic-area, and patient-access gaps. Indian Council of Medical Research-Indian Clinical Trial And Education Network (ICMR-INTENT) provides a useful foundation, connecting 84 Phase II/III sites and four Phase I institutions, while supporting investigator training, data management, regulatory liaison and multicenter trial execution[91]. Complementary models such as C4IR Telangana's Clinical Innovation Sandbox, which provides innovators access to 15 clinical sites and pathways for clinical validation, also demonstrate how innovation capabilities can be connected with real-world clinical settings[92].

Theme 2: Strengthen regulatory predictability and research confidence

India has taken important steps towards a more efficient and risk-proportionate research-regulatory environment. Recent reforms, including prior-intimation pathways for specified activities and shorter test-license timelines, provide a positive foundation. For innovative discovery, increasingly complex modalities place greater demands on specialist scientific review as programs progress towards development. For early clinical research, first-in-human activity remains relatively limited, reinforcing the need for more predictable regulatory and ethics pathways and deeper scientific-review capability for novel therapies. ICMR's recent work on advancing first-in-human Phase I research, developed through

[91] ICMR-INTENT, On-going Activities, Press Release Page | Press Information Bureau,
[92] C4IR Telangana | Clinical Innovation Sandbox | Accelerating Health Tech Trials

consultation with 37 experts across industry, CROs, academia and regulatory agencies, reinforces these priorities.[93].

Two areas merit continued focus:

- **Build predictable, science-led pathways for innovative and early-phase research:** Continue the shift towards risk-proportionate regulation while improving the consistency and predictability of regulatory and ethics pathways, particularly for first-in-human and other complex early-phase studies. Deeper scientific review capability will also be important for biologics, cell and gene therapies, and other emerging modalities. Biopharma SHAKTI points in this direction, with proposals to strengthen Central Drugs Standard Control Organisation (CDSCO) through a dedicated scientific-review cadre and specialist expertise in advanced areas[94].
- **Strengthen confidence in IP rights and trusted research-data governance:** Predictable protection of IP, proprietary molecules, and unpublished scientific and clinical data will be increasingly important both to attracting innovation-led global mandates and to strengthening India's biotech ecosystem. For science-led biotechs, protected IP can help turn differentiated science into defensible and investible assets, and create pathways for licensing, co-development, and industry partnerships. Government policy similarly recognizes the importance of IP protection to start-up innovation and competitiveness[95]. Clear governance for the protected use and sharing of scientific and clinical data can further support research and evidence generation while maintaining privacy, confidentiality and security. The wider policy dialogue also includes regulatory data protection, where the appropriate framework could balance incentives for innovation and novel-product development with competition and patient access.

> Greater investment will be encouraged by policy and approval processes that make clinical research easier to plan and execute to globally credible standards.
>
> Global Policy leader

> Predictable IP enforcement is important if companies are to be comfortable generating globally relevant IP in India.
>
> Global sponsor

> Strengthening the predictability and protection of IPR can build greater confidence in India as a location for innovation-led work and intellectual-property creation.
>
> Life Sciences Skills leader

Priority 5: Keep the operating environment competitive as GCCs scale

As pharma GCCs take on larger and more sophisticated mandates, the operating environment will need to evolve with them. India has made meaningful progress through digitization, transfer-pricing reforms, and growing central and state government recognition of GCCs. The next opportunity is to build on this momentum by making the environment simpler, more predictable, and consistently executable as centers scale and their mandates become more complex.

Theme 1: Simplify compliance for increasingly integrated GCCs

With pharma GCCs becoming more integrated with global enterprise systems, some India-specific compliance requirements can create additional complexity where technology, data, and processes are managed globally. The objective should be to continue simplifying compliance through digitization, clearer guidance, and proportionate requirements that reflect the operating characteristics of globally integrated GCCs, while maintaining strong governance and employee protections.

Some areas highlighted in the primary research include:

- Corporate compliance: Requirements under the Companies Act can require additional locally-specific processes or infrastructure for entities operating on globally managed enterprise systems. There is scope to assess where robust

[93] Press Release Page | Press Information Bureau
[94] AU2737_8Dy0pS.pdf; Press Release Page | Press Information Bureau
[95] Intellectual Property Rights

compliance can be achieved with simpler or more proportionate implementation.

- Labor and employment compliance: As India's employment framework evolves, implementation needs to remain clear and practical for professional, white-collar, and globally integrated workforces, while preserving appropriate employee protections

> Employment protection remains important, but implementation should recognize the operational differences between industrial and white-collar work.
>
> GCC leader

> Some Companies Act requirements can become complex for GCCs because systems are globally managed, while local audit-trail and data-backup rules still need to be met. The framework could better reflect captive-GCC ownership and operating models without compromising governance and controls.
>
> GCC Enterprise Functions leader

Theme 2: Align tax and transfer-pricing certainty with evolving GCC mandates

Tax and transfer-pricing certainty becomes increasingly important as GCCs move beyond routine services into R&D, advanced analytics, customer-facing activities, and greater ownership of global mandates. Primary research highlighted the importance of stable treatment as the functions, assets, and risks of India centers evolve.

Recent reforms are a positive step. The 2026 safe-harbour changes simplify previously fragmented IT-service categories, significantly expand eligibility, and introduce a more predictable multi-year framework for qualifying activities. For eligible IT services, the new regime raises the revenue threshold from INR300 crore to INR2,000 crore and introduces a 15.5% safe-harbour margin[96]. However, this simplification does not naturally extend to all advanced pharma GCC activities.

Sophisticated pharmaceutical R&D, IP-related work, and activities involving greater decision-making or risk may not fit routine service profiles and may require different transfer-pricing treatment. Primary research reinforced the importance of greater visibility into the economics of locating higher-value capabilities in India. Advance Pricing Agreements (APAs) and other multi-year certainty mechanisms, clearer treatment of increasingly sophisticated activities, and continued digitization of tax administration can help strengthen confidence in long-term investment decisions.

> There is an incongruence between encouraging more high-value work in India and potentially increasing the transfer-pricing as that work becomes more sophisticated. Greater clarity would support transparency without discouraging R&D and advanced roles.
>
> GCC leader

> As India seeks more high-end R&D and advanced roles, the tax framework should reinforce that ambition.
>
> GCC Talent leader

> Transfer pricing is one of the biggest questions from headquarters. APAs have helped by providing certainty for a defined period; as GCCs move into more R&D and sophisticated functions, greater clarity would make long-term investment decisions easier.
>
> GCC Enterprise Functions leader

Theme 3: Build a coordinated India proposition for GCC growth

India already has substantial policy momentum. The Union Budget 2025-26 announced a National Framework for GCCs to guide states across areas including talent, infrastructure, regulatory reform and industry collaboration[97]. State-level momentum has also accelerated, with NASSCOM reporting that 10 states had notified, drafted, or announced dedicated GCC policies between 2024 and early 2026[98].

The next opportunity is therefore not simply more GCC policies, but a stronger collective India proposition and coordinated execution behind them. This came through particularly clearly in the primary research: participants welcomed central and state government recognition of GCCs, while calling for India to be

[96] Press Release Page | Press Information Bureau
[97] Press Release Page | Press Information Bureau
[98] GCC POLICIES OF INDIA. | nasscom | The Official Community of Indian IT Industry

promoted more collectively, and for the central government to bring state efforts together through a national GCC showcase and a clearer platform for global decision-makers. Three areas can strengthen this approach:

- Present a stronger national GCC value proposition: Articulate India's collective proposition globally as a combination of talent, scale, technology, sector capability, and increasingly sophisticated mandates
- Coordinate facilitation across the GCC lifecycle: Make it easier for companies to navigate establishment, expansion and policy implementation across central and state government interfaces, with continued support after initial investment
- Support location infrastructure keeping pace with GCC growth: As major clusters expand and new locations emerge, connectivity, transport, airport access, quality commercial infrastructure, and urban livability will remain important to talent attraction and business operations

> I have seen the government make quite a bit of progress on ease of doing business, and some incentives have been very welcome. Building on that strengthens the case for further investment.
>
> GCC Talent leader

> It is brilliant to see central and state governments embrace the GCC ecosystem, and state policies have been helpful. I would also like to see One India proposition, with work, talent, and expertise coming to the country as the shared goal.
>
> GCC leader

> A lot is already happening at the state level on GCC policies. The central government can add another layer by bringing these efforts together, creating a national GCC showcase and giving companies and global leaders a platform to understand what India has to offer.
>
> GCC leader

> We have seen really good policy announcements. What matters now is making sure they translate into equally strong implementation on the ground.
>
> Global sponsor

> The incentives we were offered were encouraging. Consistent follow-through gives us greater confidence when we make the case for investing more in the GCC.
>
> Global Policy leader

> In a large city, transport for employees and visitors can become a real consideration. Commute times, airport connectivity, city planning, and public transport influence how attractive a location is for talent and business.
>
> Global sponsor

India has the foundations to shape the next chapter of global pharma GCC growth. The opportunity now is to convert scale into strategic advantage, enabling deeper global mandates, stronger scientific and innovation capabilities, and a greater role for India in shaping the future of global biopharma. In doing so, pharma GCCs can become not only engines of enterprise value, but important contributors to India's journey towards Viksit Bharat. What comes next will depend on coordinated action across industry, government, academia and the wider ecosystem to turn this potential into a defining decade of growth and innovation for India.



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About OPPI

The Organisation of Pharmaceutical Producers of India (OPPI) established in 1965, represents the research-based global pharmaceutical companies in India. OPPI has been an integral part of the healthcare journey of the country. We remain committed to supporting the nation's healthcare objectives, putting patients at the core of all decision making and collaborating with all stakeholders to find sustainable solutions to realize the collective vision of Health for All.

Our member companies have been serving the country's healthcare ecosystem since pre-independence and continue to remain committed to patient safety and providing quality care in the future as well. As an association, our advocacy decisions, patient commitment and work are always keeping the country first and we embody the spirit of working for 'Bharat Ke Liye'; driven with innovation to find solutions for unmet medical needs, collaboration with government stakeholders, and co-creation with partners coming together to address the nation's healthcare challenges. We are committed to the Hon'ble Prime Minister Shri Narendra Modi-ji's clarion call of '*Jai Vigyan and Jai Anusandhan*'.

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