India's AI Roadmap and Current Developments

Introduction

India is undergoing a strategic transformation in its approach to Artificial Intelligence (AI), recognizing it as a key driver of economic growth and social progress. With a vast population, diverse economy, and rapidly expanding digital infrastructure, the country is uniquely positioned to harness AI's potential. By leveraging AI, India aims to revolutionize industries, enhance decision-making, improve healthcare and education, and address critical challenges such as climate change. The government envisions a future where AI is integrated across sectors to drive innovation, inclusivity, and efficiency in areas like agriculture, governance, and public services.

To realize this vision, India has launched key initiatives such as the National Strategy for Artificial Intelligence, aimed at developing a robust AI ecosystem, fostering indigenous AI models, and strengthening infrastructure. These efforts reflect India's ambition to become a global leader in AI while ensuring ethical and inclusive development. This overview of India's AI landscape outlines the current status, major initiatives, and challenges, and emphasizes the importance of collaboration among domestic and international stakeholders—governments, industries, academia, and research institutions—to accelerate AI innovation and address shared global goals.

Government Policies, Initiatives, and Schemes

India's AI journey is being propelled by the IndiaAI Mission and National Strategy for Artificial Intelligence, which together focus on democratizing computing power, enhancing data quality, and fostering responsible innovation. Simultaneously, multiple state-led "AI missions," curriculum overhauls, and infrastructure initiatives—spanning sectors from agriculture to defense—are bringing AI directly into governance, education, and public services.

National AI Strategy: India's AI roadmap by NITI Aayog

(India's National Strategy for Artificial Intelligence | Digital Watch Observatory; National Strategy for Artificial Intelligence)

India's National Strategy for AI, spearheaded by NITI Aayog, outlines a comprehensive roadmap to position the country as a global leader in AI, with a strong emphasis on inclusive growth and societal transformation. Launched in 2018 under the banner of #AIForAll, the strategy focuses on leveraging AI to address key national challenges across various sectors.

- **Vision**
  India aims to harness the power of AI to drive inclusive economic growth, deliver societal benefits, and establish itself as a global hub for AI innovation.
- **Focus Areas**
  The strategy focuses on transforming five key sectors through AI: Healthcare, Agriculture, Education, Smart Cities, and Smart Mobility.
- **Strategic Pillars**
  It emphasizes the economic impact of AI, promotes social inclusion, and aspires to global leadership through innovation and responsible deployment of AI technologies.
- **Ethical AI**
  The strategy advocates for Responsible AI by ensuring fairness, accountability, and transparency in the development and use of AI systems.
- **Action Plan**
  To implement the strategy, the government plans to launch pilot projects, build AI talent and infrastructure, and advance the IndiaAI Mission by developing indigenous AI models, establishing an AI Safety Institute, and investing in high-performance computing capabilities.

IndiaAI Mission

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The IndiaAI Mission, launched by the Government of India in March 2024, is a major initiative with an allocation of ₹10,300 crore (USD 1.24 billion), aiming to democratize AI access and position India as a global leader in AI innovation and responsible AI development. (India's initiatives under IndiaAI Mission - LibCognizance).

- As part of its focus on indigenous AI model development, Indian startup Sarvam AI was selected in April 2025 to build the country's first sovereign large language model (LLM), with capabilities in reasoning, voice technology, and fluency across Indian languages.

- To support AI research and applications, the mission is expanding AI infrastructure by deploying 18,693 GPUs, making it one of the largest public AI compute facilities globally. In the second round of GPU tenders, the government received bids offering 18,000 GPUs, and all seven shortlisted companies successfully cleared the technical evaluation phase. (IndiaAI Mission GPU tender round 2: All seven shortlisted bidders clear technical round - The Economic Times)

- The IndiaAI Compute Portal now offers access to 14,000 GPUs, with 4,000 more to be added soon. These resources are made available to startups, researchers, and students at subsidized rates of ₹100 per hour, significantly lower than the global average of USD 2.5 to USD 3 per hour. (India's initiatives under IndiaAI Mission - LibCognizance).

- To promote innovation and support startups, the mission launched calls for proposals, receiving 67 submissions in its first month. These proposals focus on building LLMs, LMMs (large multimodal models), and SLMs (specialized language models) for sectors like healthcare, education, and finance. Additionally, the IndiaAI Startups Global Acceleration Program, launched in partnership with Station F and HEC Paris, offers 10 Indian AI startups mentorship, investor access, and international expansion support. (Press Release:Press Information Bureau).

- The mission is structured around seven core pillars: (i) IndiaAI Compute (affordable GPU access), (ii) IndiaAI Datasets Platform (centralized repository), (iii) IndiaAI Application Development, (iv) IndiaAI FutureSkills (AI skilling), (v) IndiaAI Innovation Center, (vi) Safe & Trusted AI Projects (bias mitigation, explainability, ethical certification), and (vii) Expression of Interest (EoI) rounds for developing tools like watermarking and deepfake detection.

- Under the IndiaAI FutureSkills initiative, AI education is being expanded at the undergraduate, postgraduate, and Ph.D. levels, with fellowships for top students. The mission also plans to establish 27 IndiaAI Data Labs in Tier 2 and Tier 3 cities, with a model lab already functional at NIELIT Delhi. These labs, supported by Intel, offer hands-on training, foundational courses, and simulated apprenticeships. (https://www.libcognizance.com/2025/05/indias-initiatives-under-indiaai-mission.html)

- To enhance AI adoption in governance, the IndiaAI Competency Framework was launched on March 6, 2025, to upskill public sector officials in AI application, policymaking, and ethics.

- Complementing AI development, India is also strengthening its semiconductor ecosystem, with five fabrication plants currently under development. These will provide the technological foundation needed to support India's AI and electronics industries. (Press Information Bureau)

State-Level AI Initiatives: Telangana's Applied AI Research Centre

Telangana's Applied AI Research Centre (INAI)

The Applied AI Research Centre (INAI) is a collaborative initiative by the Government of Telangana, Intel, IIIT Hyderabad, and the Public Health Foundation of India (PHFI). Anchored at IIIT Hyderabad, INAI focuses on applying AI to population-scale problems in the Indian context, particularly in healthcare and smart mobility.

(INDIAai)

Key Initiatives

1. AI for Good

   INAI develops AI solutions aimed at addressing critical societal challenges, such as improving healthcare accessibility and enhancing road safety through smart mobility solutions. (inai | An Applied AI Research Centre)

2. AI Grand Challenge

   The Telangana AI Rising Grand Challenge invites startups to develop AI solutions for pressing public sector issues in areas like healthcare, education, and transportation. Winners receive grant support and opportunities to pilot their solutions within the state.(Telangana AI Rising Grand Challenge 2025 - Calling all Visionary AI Startups!)

3. AI Research Fellowships

   INAI offers fellowships to Ph.D. scholars and early-career researchers working on applied AI projects aligned with national and state-level priorities, fostering AI talent development.

4. AI Techecosystem Development

   Through initiatives like the Telangana AI Mission (T-AIM), the state promotes a vibrant AI innovation ecosystem by connecting startups, corporates, academia, and government agencies to foster knowledge exchange and co-development of solutions.

5. International Collaborations

   Telangana is building global partnerships to promote joint research, technology transfer, and international exposure for local AI startups and researchers, helping them scale and compete globally.

AI in Governance: Transforming Public Services in India

The Government of India, along with several state governments, is leveraging AI to enhance public service delivery, drive efficiency, and address large-scale challenges across key sectors like healthcare, agriculture, and smart cities.

1. *AI in Healthcare*

AI is being widely adopted to improve diagnostic accuracy, accessibility, and public health outcomes.

- The Ayushman Bharat Digital Mission uses AI to manage and analyze electronic health records, enabling predictive healthcare and personalized treatment plans. Ayushman Bharat Digital Mission
- Tools like eSanjeevani, India's telemedicine platform, and XraySetu use AI to facilitate remote diagnostics and early detection of diseases such as tuberculosis, especially in rural and underserved areas.
- The INAI (INtel Applied AI Research Centre) in Telangana has developed AI models for retinal screening to detect diabetic retinopathy at primary healthcare centers, supporting early intervention.

2. *AI in Agriculture*

(Home | Indian Council of Agricultural Research Krishi Bhavan)

AI solutions in agriculture are improving productivity, resource optimization, and governance of land assets.

- AI-powered crop monitoring tools analyze satellite imagery and IoT sensor data to assess crop health, predict yields, and detect pest outbreaks. ICAR and startups like Krishi Yantra lead these initiatives.

- AI algorithms are used to provide fertilizer recommendations and assess soil health, enabling precision farming techniques that increase efficiency and reduce costs.
- The Bhoomi Project in Karnataka applies AI to digitize land records, detect anomalies, and reduce land ownership disputes. This initiative supports transparency and improves ease of doing business in rural areas.

3. *AI in Smart Cities*

(Home page | Smartcities)

AI technologies are enabling data-driven urban governance to improve city management, safety, and quality of life.

- Integrated Traffic Management Systems (ITMS) powered by AI are deployed in cities like Pune, Bengaluru, and Surat, optimizing traffic signal timing, reducing congestion, and enhancing road safety.
- AI-based waste management systems are implemented in cities like Indore and Bhopal to optimize garbage collection routes, monitor bin status, and forecast waste volumes.
- Surveillance systems enhanced with AI in Hyderabad and Lucknow support anomaly detection, facial recognition, and real-time alerts, improving public safety and law enforcement responsiveness.
- Smart energy grids in pilot cities use AI to manage energy loads, detect faults, and optimize power consumption in public infrastructure.

Global Forums and Engagements

India's Role in Global AI Discussions

India has been actively participating in global discussions on AI, demonstrating its commitment to the ethical, inclusive, and sustainable development of AI technologies. Two key international platforms where India has taken a significant role are the Organization for Economic Co-operation and Development (OECD) and the Global Partnership on Artificial Intelligence (GPAI).

Participation in the OECD AI Policy Discussions

The OECD has been instrumental in shaping global AI policy through its OECD AI Principles (2019), which promote responsible stewardship of trustworthy AI. Although India is not a

member country of the OECD, it engages with the organization through OECD's AI Policy Observatory and its Network of Experts on AI (ONE AI).

Since 2007, India has been an OECD Key Partner, engaging in areas like economic policy, corporate governance, anti-corruption, trade, and investment.

- Committee Participation and Collaboration: India participates in selected OECD committees and is a member of the OECD Development Centre, gaining access to technical expertise and policy advice.
- Support for Global Role and Development: The OECD supports India's global leadership, including its G20 presidency, with a focus on boosting productivity, sustainable development, and economic growth.

  (India | OECD; https://oecd.ai/en/ai-principles)

Leadership in the GPAI
GPAI is a multistakeholder initiative that supports the responsible development and use of AI in line with human rights, inclusion, diversity, innovation, and economic growth.

- India is a founding member of the GPAI, launched in June 2020. It was elected as Council Chair in November 2022, served as Incoming Chair in 2023, and became Lead Chair in 2024.
- To promote ethical AI, India established the GPAI Centre of Excellence on Responsible AI in Bengaluru. The YUVA AI initiative, involving students, showcased innovative AI solutions during the Summit.
- The country hosted the GPAI Summit in New Delhi in December 2023, bringing together global leaders to discuss AI governance, inclusive innovation, and bridging the AI divide. It co-leads key working groups on AI for Social Good and Data Governance.
- India co-leads key working groups within GPAI, including those on AI for Social Good and Data Governance.

  (https://gpai.ai/events/india-2023/; https://www.meity.gov.in; India joins Global Partnership on Artificial Intelligence (GPAI) as a founding member to support the responsible and human-centric development and use of AI)

International AI Collaborations

Indo-German AI Partnership

India and Germany have deepened their collaboration in AI through several initiatives:

- AI Startups and Research: The two countries have agreed to work together on AI startups, research, and applications in sustainability and healthcare. This collaboration aims to leverage each country's strengths in science and technology to address global challenges. (India and Germany agree to work together on AI startups, research and application)
- Digital Dialogue Work Plan (2023–2024): The Indian Ministry of Electronics and Information Technology (MeitY) and the German Federal Ministry for Digital and Transport (BMDV) signed a new work plan to guide their digital cooperation. This plan focuses on internet governance, data policy, IT security, and the promotion of human-centered AI solutions. (New Work Plan 2023-2024 for the Indo-German Digital Dialogue - International Digital Dialogues)
- Innovation Corridor: A partnership between the Indo-German Chamber of Commerce (AHK India), Asia Berlin Forum e.V, and the German Indian Innovation Corridor (GIIC e.V.) has been established to accelerate digitalization and innovation. This includes connecting startups and scale-ups from both countries to cross-border opportunities and sharing resources and networks.

U.S.-India AI Initiative (USIAI)

(Overview - USIAI)

The U.S.-India Artificial Intelligence (USIAI) Initiative, launched by the Indo-U.S. Science and Technology Forum (IUSSTF), serves as a platform to enhance AI cooperation between the two nations:

- Strategic Partnership: USIAI aims to strengthen the strategic partnership by focusing on AI cooperation in critical areas, building on shared values of openness, transparency, and reciprocity.
- Collaborative Goals: The initiative provides a platform for stakeholders to identify opportunities for bilateral AI R&D collaboration, share ideas for developing an AI workforce, and recommend mechanisms for catalyzing partnerships.
- Deliverables: USIAI plans to produce white papers identifying technical, research, infrastructure, and workforce opportunities and challenges. It also aims to create an online repository to disseminate information on roundtables, workshops, funding opportunities, and AI-related educational content.

Legal Framework and AI Regulations

Need for AI Regulations: Risks and Challenges

India's burgeoning AI landscape holds immense potential for sectors like healthcare, agriculture, and governance. However, without robust legal safeguards, this growth poses significant risks:

1. Data Privacy and Security Risks
    - The Digital Personal Data Protection Act, 2023 (DPDPA) aims to protect digital personal data. However, it grants broad government exemptions, potentially compromising individual privacy rights.
2. A PwC India survey revealed that only 33% of Indian organizations understand data privacy requirements, and 67% are unsure about AI regulatory compliance. Digital Personal Data Protection Act, 2023 - Wikipedia
3. Bias and Discrimination
    - AI systems can perpetuate societal biases. India lacks specific laws to address AI-induced discrimination, making it challenging to hold developers accountable.
    - A study published in *JAMA* found that biased AI predictions reduced clinicians' diagnostic accuracy by 11.3 percentage points.

      (19 Dec, 2024)
4. Lack of Accountability
    - The absence of clear legal frameworks makes it difficult to assign responsibility for AI-driven decisions, especially in critical areas like healthcare and law enforcement.
5. Misinformation and Deepfakes
    - Deepfake incidents in India surged by 550% since 2019, with projected losses reaching ₹70,000 crore (USD 8.155 billion) in 2024. Notably, deepfake videos of political figures circulated during the 2024 general elections, raising concerns about electoral integrity. (11 Feb, 2025)
6. Job Displacement and Labor Market Impact

- Automation could displace up to 60 million workers in India's manufacturing sector by 2030, particularly affecting industries like textiles and electronics. (19 Dec, 2024)

7. Cybersecurity Threats
    - AI-powered cyberattacks, including phishing and automated hacking, pose severe risks. In 2024, Indians lost nearly ₹12,000 crore (USD 1.40 billion) to cyber scams, a 300% increase from previous years.

      (11 Feb, 2025)
8. Lack of Ethical Standards
    - India lacks comprehensive AI-specific legislation. Existing laws like the Information Technology Act, 2000 and the DPDPA do not adequately address AI's ethical challenges.

      AI and Data Privacy in India: Emerging Legal and Ethical Challenges

Existing and Proposed AI Laws

1. Digital India Act (Proposed by India)

- The Digital India Act (DIA) is a proposed legislative overhaul designed to modernize and replace the two-decade-old Information Technology Act, 2000. It aims to serve India's 850 million internet users by introducing a four-pronged framework that includes new rules, a National Data Governance policy, the Digital Personal Data Protection Bill, and updates to the IPC.
- Key features include algorithmic transparency, periodic risk assessments for digital entities, sector-wise classification of intermediaries, and a dedicated adjudicatory mechanism for cyber offences.
- It also targets online harms—such as misinformation, deep-fakes, cyberbullying—and mandates liability for AI platforms in sensitive sectors like healthcare.

  (https://www.thehindu.com/news/national/explained-highlights-of-the-proposed-digital-india-act-2023/article66613508.ece).

2. Digital Personal Data Protection Act, 2023 (DPDP Act)

- The Digital Personal Data Protection Act, 2023 (DPDP Act), passed by the Indian Parliament in August 2023, is India's first comprehensive data privacy law governing the processing of *digital personal data*.
- It applies to entities within and outside India that offer goods or services to Indian residents, covering over 850 million internet users. The Act mandates user consent, grants individuals rights to access, correct, or erase their data, and imposes strict obligations on data fiduciaries—including penalties of up to ₹250 crore (USD 30.5 million) for violations. It also establishes the Data Protection Board of India for enforcement and grievance redressal.
  https://carnegieendowment.org/research/2023/10/understanding-indias-new-data-protection-law?lang=en

3. Bletchley Declaration (Global, incl. India)

- The Bletchley Declaration was signed on 1 November 2023 at the AI Safety Summit in Bletchley Park, UK, by 28 countries including India, the US, UK, EU, China, and Japan.
- It marked the world's first major multilateral agreement focused on the risks of frontier AI, particularly highly capable foundation models. Signatories committed to international collaboration on AI safety research, model evaluations, risk thresholds, and government oversight of powerful AI systems.
- The declaration laid the groundwork for future global governance frameworks and cooperation on mitigating AI misuse and existential threats.

  https://www.gov.uk/government/publications/ai-safety-summit-2023-the-bletchley-declaration/the-bletchley-declaration-by-countries-attending-the-ai-safety-summit-1-2-november-2023

4. AI Act (EU) – Indian Relevance (2024)

- Indian AI firms must follow the EU AI Act for high-risk categories (e.g., biometrics, healthcare). More than 60% of India's AI exports go to the EU & US (NASSCOM, 2023).

  EU AI Act – EU Commission

- EU's risk-based model is shaping India's Digital India Bill & DPDP Act.
- Indian regulators are studying EU guidelines for domestic AI safety frameworks.

AI Market Dynamics and Opportunities in India

Section	Details
1. Market Size (India)	• Projected to reach USD 7.8 billion by 2025, CAGR ~40 (2020–25) • AI software market to hit USD 6.36 billion by 2025, from USD 2.77 billion in 2020; CAGR 18.1% • Pre-CGPT estimates: USD 7.8 billion total, software share: USD 6.36 billion
2. Growth Trajectory Beyond 2025	• Market expected to triple to USD 17 billion by 2027 • BCG & NASSCOM: CAGR 25–35% (2024–27); AI workforce growing ~15% annually • Grand View: USD 184 billion by 2030, CAGR ~49% (2025–30) • IMARC: Growth from USD 1.25B (2024) to USD 12.43B (2033); CAGR ~27.6%
3. India vs Global Landscape	• Global AI market: USD 638B (2024–25) → USD 3.68T (2034); CAGR ~19% • Asia Pacific: fastest-growing region (~CAGR 19.8%) • India contributes ~5.2% of global AI revenue in 2023 • AI may add USD 500B to India's GDP by 2035, boosting annual growth by 1.3%

Sources:

https://indiaai.gov.in/article/india-s-ai-market-to-reach-usd-7-8-billion-by-2025-says-idc-s-latest-report-on-ai
https://www.weblineindia.com/blog/software-development-statistics-trends/
https://www.grandviewresearch.com/horizon/outlook/artificial-intelligence-market/india

https://www.imarcgroup.com/india-artificial-intelligence-market

https://www.marketsandmarkets.com/Market-Reports/artificial-intelligence-market-74851580.html

https://www.precedenceresearch.com/artificial-intelligence-market

Industry Investments

India is experiencing a surge in AI investments, driven by growing digital adoption, supportive government policies, and active participation from global tech giants and domestic industry leaders aiming to strengthen the country's AI infrastructure, talent pool, and innovation capacity.

Category	Details (India)
Microsoft AI Investment	• USD 3 billion pledged over two years to expand Azure cloud & AI infrastructure • Data centers: currently 3 regions, 4th by 2026 • Skilling: 10 million Indians by 2030 (2.4 m already trained in 2024) • Partnerships: Apollo Hospitals, Bajaj Finserv, Mahindra Group, upGrad, RailTel, IndiaAI Mission
Finance	• 64% of Indian firms prioritize GenAI investment; however 75% lack change-management plans • Major banks (HDFC, SBI) and Wells Fargo adopting agentic AI to automate workflows and boost efficiency
Healthcare	• Apollo Hospitals: allocates ~3.5% of digital budget (past 2 years) to AI for documentation, diagnosis, transcription; saves ~2–3 hrs/day per clinician • Deployed pilot AI across major hospital chains—including Fortis, Tata Memorial, Max Healthcare—and developing antibiotic-prescribing tools
Retail	• E-commerce market hit USD147 bn in 2024 (CAGR ~18.7%), AI driving hyper-personalization and supply chain optimization

Sources:

https://www.reuters.com/technology/microsoft-invest-3-bln-expand-azure-ai-capacity-india-2025-01-07/

https://economictimes.indiatimes.com/tech/artificial-intelligence/genai-joins-the-checklist-64-of-indian-companies-are-making-it-a-priority-report/articleshow/121952746.cms

https://www.reuters.com/business/healthcare-pharmaceuticals/indias-apollo-hospitals-bets-ai-tackle-staff-workload-2025-03-13/

https://retailasia.com/e-commerce/news/indias-e-commerce-market-reach-1473b-in-2024

Key AI Companies and Industry Activities

India's AI sector is witnessing rapid growth, fueled by increasing industry adoption, significant R&D efforts, and the development of advanced AI platforms, tools, and talent pipelines across diverse sectors such as healthcare, finance, manufacturing, and telecom.

Major AI Players in India

Company	Key AI Activities
Infosys	• 400+ GenAI projects (75% YoY growth) • 270,000+ employees trained on AI • Topaz: 12,000+ AI assets, 150+ pretrained models • Launched Responsible AI Suite (Scan, Shield, Steer) • Partnered with Adobe for AI marketing (Aster Suite) • ₹70 cr grant to AI4Bharat for Indian language LLMs • ₹32 crore (USD 3.73 million) AI-FinTech centre at GIFT City
TCS	• 150,000+ employees trained in GenAI • AI Experience Zones and labs in 14 global hubs • 24 AI Centres of Excellence (CoEs) • Developed AI-powered digital twins with NVIDIA Omniverse • R&D at TRDDC labs: MasterCraft, machine learning tools

Company	Key AI Activities
Wipro	• Holmes AI platform (cognitive automation, visual AI) • TelcoAI360 for telecom AI workflow automation • 225,000+ employees trained via NVIDIA partnership • Established Generative AI Studio for client use cases
HCLTech	• Operations in 60+ countries • 200+ delivery centers, 150+ innovation labs • HCLSoftware unit offering AppScan, BigFix, and data analytics platforms for AI delivery
NVIDIA India	• Released Nemotron-4 Mini Hindi (4B parameter LLM) • Training ~500,000 developers with Infosys, TCS, Wipro • Partnered with Reliance Jio on GH200 superchips & DGX Cloud • Supplied Hopper AI chips to Yotta & Tata Communications • Omniverse used by Ola, Reliance, TCS, Wipro for digital twin solutions

Sources:

https://www.infosys.com/investors/reports-filings/annual-report/annual-reports/ar-2023-24.html

Artificial Intelligence – The Next Technological Revolution

https://www.wipro.com/newsroom/press-releases/2025/wipro-launches-telcoai360-at-mobile-world-congress-2025/

https://www.hcltech.com/

https://blogs.nvidia.com/blog/india-inception-ai-startups/

AI Startups Ecosystem – India

- India hosts over 5,000 AI startups as of 2024, making it one of the top 5 countries globally in AI startup activity.

- Indian AI startups raised over USD 1.2 billion in funding in 2023, led by sectors like healthtech, fintech, and enterprise AI.
- Startups are innovating in areas such as conversational AI (Yellow.ai), healthcare diagnostics (Qure.ai), document processing (Docsumo), and agritech (CropIn).
- Indian startups like Genei, Gnani.ai, and Arya.ai are gaining international traction for NLP, voice AI, and deep learning solutions.
- Initiatives like Startup India, INDIAai, and NASSCOM's Centre of Excellence for AI are fostering innovation through funding, mentorship, and infrastructure.

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://hkifoa.com/wp-content/uploads/2024/11/indias-generative-ai-startup-landscape-nassscom.pdf

https://hkifoa.com/wp-content/uploads/2024/11/indias-generative-ai-startup-landscape-nassscom.pdf

Cross-Border Collaborations

Several leading Indian tech companies are expanding their global AI footprint through strategic cross-border collaborations:

- TCS (Tata Consultancy Services): Partnered with US-based Google Cloud to launch AI-powered business solutions across industries including retail, manufacturing, and finance.
- Infosys: Collaborates with NVIDIA and Microsoft to integrate generative AI into enterprise services and build AI-first enterprise platforms globally.
- Wipro: Invested USD 1 billion in AI over three years; partnered with IBM and AWS to co-develop AI solutions and expand AI offerings in the U.S. and Europe.
- HCLTech: Expanded its AI and data engineering services with a global delivery model and partnerships with SAP and Microsoft Azure AI for digital transformation solutions.
- LTIMindtree: Partnered with Microsoft to build AI-powered platforms for enterprise modernization and is expanding AI labs in North America and Europe.

Foreign Engagements in India's AI Ecosystem

India's AI ecosystem is advancing rapidly through global collaborations, especially with the U.S., across research, education, and industry. These partnerships are key to driving innovation, workforce development, and ethical AI growth.

Category	Initiative / Partnership	Highlights
1. Government-to-Government	iCET (Initiative on Critical and Emerging Technologies)	USD 2M+ allocated in 2024 for 11 AI and 6 quantum projects (e.g. cancer detection)
	NSF–DST/MeitY Grants	Joint funding of USD 5–10M across AI, ML, telecom, and semiconductor research
2. Fellowships & Policy	U.S.–India AI Fellowship (ORF & ORF America)	20 emerging AI leaders (10 from each country) engaged in policy, ethics, and leadership development
	USIAI (U.S.–India AI Initiative)	Visioning workshops (e.g. at IISc, 2022), whitepapers on AI R&D and workforce strategies
3. Academic Collaborations	AAU–IIT Council / Global Challenges Institute	MOUs signed between IITs and top U.S. universities (MIT, CMU, Stanford); USD 10M initial funding
4. Corporate-Led Training	Microsoft – ADVANTA(I)GE INDIA	USD 3B investment; training 10M Indians in AI by 2030 (2.4M already trained in 2024) Targets: 2M in AI, 500K rural students, 100K women, 250K civil servants
	Goldman Sachs – GenAI Workforce	Set up GenAI training centers in Bengaluru and Hyderabad; Training

Category	Initiative / Partnership	Highlights
		1,000+ India-based employees in generative AI

Sources:

https://indiaai.gov.in/

https://www.reuters.com/technology/microsoft-invest-3-bln-expand-azure-ai-capacity-india-2025-01-07/

U.S.-India Artificial Intelligence Cooperation | Adapt & Advance: A Refreshed Agenda for U.S.-India Relations | CSIS

Key Foreign AI R&D Investments in India

- Applied Materials
  Investing USD 400 million over 4 years to build a semiconductor R&D center in Bengaluru, with the potential to attract USD 2 billion in future investments
  https://economictimes.indiatimes.com/tech/technology/applied-materials-says-bengaluru-chipmaking-centre-to-rake-in-2-billion/articleshow/121959728.cms.
- Google
  Opened the first Asia–Pacific Safety Engineering Centre in Hyderabad (June 2025) to work on AI safety, cybersecurity, and fraud prevention
  Established an AI Accelerator in Hyderabad to support startups across sectors like agriculture, education, and mobility
- Cognite
  Launched an AI services center in Bengaluru, investing “millions of U.S. dollars” and working with industrial and automotive giants
- Amgen
  Committed USD 200 million to a Hyderabad-based tech center focused on AI and data science for drug discovery, scaling from 300 to ~2,000 employees by the end of 2025

https://www.reuters.com/business/healthcare-pharmaceuticals/amgen-plans-200-million-investment-india-site-ceo-says-2025-02-24/

- Korcomptenz
  Expanding its Chennai and Hyderabad operations with an ₹20 crore (USD 2.33 million) investment in AI research, aiming to double its 250-strong workforce in 18 months

  https://timesofindia.indiatimes.com/city/chennai/us-based-technology-service-company-korcomptenz-to-open-new-hubs-in-chennai-hyderabad/articleshow/121036212.cms

- Microsoft
  Committed USD3.7 billion to build data centers in Telangana, and USD 3 billion more for AI/Cloud infrastructure; also plans to train 100,000 developers and establish AI centers of excellence.

  https://www.business-standard.com/technology/tech-news/ai-in-india-gets-a-boost-as-microsoft-amazon-invest-billions-in-data-infra-124061800328_1.html

Taiwan's AI and Technology Ecosystem

Semiconductor Industry

- Taiwan leads globally in semiconductor foundry, packaging, and testing, ranking second in integrated circuit design, and nearing mass production of 3 nm chips, crucial for edge-AI devices.

  https://www.reuters.com/plus/taiwan-global-ai-hub

- Its semiconductor sector produced ~USD 152.7 billion in 2024 output, supporting 90% of the world's AI servers, and led the server industry to grow to €13.16 billion (+103% YoY)

  https://taiwan.ahk.de/en/invest/growth-sectors/semiconductors-ai

Advanced AI R&D Infrastructure

- The Industrial Technology Research Institute (ITRI) hosts open labs and incubators (e.g., AI Chip Design Lab with Synopsys) to reduce AI chip time-to-market from 2.5 years to 6 months and boost performance by 25%.

- National science parks—Hsinchu, Central, and Southern Taiwan—house hundreds of high-tech firms (500 in Hsinchu alone), universities like NTU and NTHU, and national AI supercomputers like Taipei-1 and Taiwania 2, facilitating translational research.

India–Taiwan AI & Tech Collaboration Opportunities

Science Park & Incubator MoUs

- Karnataka signed MoUs with Hsinchu and Central Taiwan Science Parks to promote AI, robotics, and faculty/entrepreneur exchanges.
- NASSCOM CoE IoT partnered with Taiwan's National Chung Cheng University incubator to aid Indian hardware startups with component sourcing during prototyping/production.

Semiconductor Workforce & Capacity Building

- AICTE (Ministry of Education, India) visited Taiwan in September 2023, forging MoUs with universities for skill development, student exchange, and R&D in semiconductors—targeting ~8,000 skilled professionals via curriculum adoption in 128 Indian colleges https://www.educationtimes.com/article/newsroom/99733676/aicte-facilitates-indo-taiwan-collaboration-to-boost-semiconductor-sector
- India–Taiwan Semiconductor Forum (June 2024) brought together MeitY, India Semiconductor Mission, and Taiwanese industry leaders to strategize joint semiconductor collaborations

Chip Manufacturing Partnerships

- Powerchip (Taiwan) and Tata Electronics (India) announced an USD 11 billion joint venture to establish a 12-inch wafer fab in Dholera, Gujarat—expected to create over 20,000 jobs.

  https://globaltaiwan.org/2024/11/beyond-the-strait-taiwan-india-semiconductor/

  Foxconn (Taiwan) plans semiconductor ATMP facilities in India through joint ventures (e.g., with HCL), with investments like USD 37.2 million announced.

AI-Health & Pandemic Prevention Systems

- In March 2021, Taiwan's National Chung Cheng University and India's SRM Institute collaborated on an AI-based pandemic-prevention system using thermal cameras, facial recognition, and edge AI—planned expansion to fake media detection.

Conclusion

India is rapidly emerging as a global AI hub, driven by strong government initiatives, a growing startup ecosystem, and increasing foreign investment. With the AI market projected to reach USD 3.97 billion by 2029 at a CAGR of 32.26%, the country is leveraging AI to drive economic growth and digital transformation.

National strategies like the NSAI and partnerships such as iCET and USIAI have strengthened India's position in AI research, policy, and skill development. Collaborations with global leaders like the U.S. and Taiwan are accelerating innovation in semiconductors, AI infrastructure, and workforce training.

Focused on inclusive development, India is applying AI to sectors like healthcare, agriculture, and education, while promoting ethical and responsible AI use. As these efforts scale, India is well-positioned to lead in AI-driven innovation, contributing to both domestic progress and global tech leadership.