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India's Developmental Approach in AI and Competences

Strengthening the Indo-German developmental agenda through AI
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India and Germany both launched their respective AI Strategies in 2018 and referenced use and development of 'AI for All'. India manifested the term '#AiforAll in the ethos of the Hindi slogan 'Sabka Saath Sabka Vikas' meaning 'everyone's cooperation leading to balanced growth', highlighting social inclusion as the key. Similarly, Germany's 2018 AI Strategy focused on human-centred development and values of social inclusion. India's approach to AI with its focus on social impact sectors, equitable access, and responsible AI development is aimed at democratising AI for all i.e., making technology accessible for all. Similarly, Germany views AI as a key driver of digital development, innovation, and societal progress. India and Germany each mention ensuring ethical and responsible development of AI and this shows the moral intent of both nation states to develop transparent and accountable AI tools and services. This paper presents India's AI approach rooted in the developmental ethos and India's core AI competencies. It also proposes recommendations to strengthen the Indo-German development agenda through AI and the convergence of Germany's 'AI nation' ambition with India's AI initiatives in making AI technology inclusive, equitable, and responsible for all.

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India's AI[1] approach

India's approach to AI embeds an equitable use of AI for all by being pro-innovation with provision for light touch innovation[2]. India is applying the power of AI to help solve developmental challenges in social sectors, augment research and innovation, and advance the use of technology for equitable impact. India's use of AI is intended to tackle India's developmental challenges in social and public sectors such as increasing access to primary healthcare and diagnostic services, addressing the needs of the smallholder farmers and promoting the inclusion of marginalised communities in public discourse through development and adoption of population scale use-cases at affordable prices.

India underscored the potential of AI in its 2018 AI Strategy and branded it #AIforAll[3] with its strategic objectives ensuring social and inclusive growth and equitable development. Indian policy makers proposed an India AI Tech Stack[4] to underscore AI's true impact on India's economy with a need to balance innovation through responsible[5] AI use. The IndiaAI[6] mission announced in 2023 under the Ministry of Electronics and IT (MeitY) symbolises India's aim to democratise AI i.e., to make technology accessible and beneficial for every citizen of India. The IndiaAI mission is grounded in the principles of ethical, transparent, and responsible innovation[7] and wants to foster the power of public and private sector partnership to build a comprehensive India AI ecosystem. The IndiaAI mission's seven pillars inculcate AI competence in computing, models, datasets, talent, research, innovation and responsible use of AI. In March 2024, the IndiaAI mission[8] received a financial outlay of roughly 1.25 billion USD.

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[1] The term artificial intelligence (AI) denotes a technology that can understand and respond like humans and act independently without a need for human intervention and possesses an ability to generate original content called GenerativeAI or GenAI. GenAI denotes the large language models (LLMs) transformative generative human like ability to understand, comprehend, reason and action conversations agnostic to sectors and domains such as natural language ChatBots, or voice-enabled public advisory and knowledge services in local dialects such as ChatGPT. The fast diffusion of AI technology and its speed of adoption is due to three innovations. Innovations in AI computing power (AI chips), innovation in AI models such as foundation models (powering Generative AI such as ChatGPT) and large capital investments to build AI infrastructure to run these AI models.

[2] India's approach to AI regulation is pro-innovation: IndiaAI CEO; 03-June-2025; https://www.ptinews.com/story/business/india-s-approach-to-ai-regulation-is-pro-innovation-indiaai-ceo/2613470

[3] National Strategy for Artificial Intelligence #AIForAll, https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf

[4] Indian Artificial Intelligence Stack, Department of Telecommunications (DoT), 02-Sept-2020 https://www.tec.gov.in/pdf/Whatsnew/ARTIFICIAL%20INTELLIGENCE%20-%20INDIAN%20STACK.pdf

[5] Responsible AI #AIFORALL, Approach document for India; https://www.niti.gov.in/sites/default/files/2021-02/Responsible-AI-22022021.pdf

[6] India's national program on AI is termed as the IndiaAI mission.

[7] India advocates democratisation of AI: Union minister Ashwini Vaishnaw, 19-June-2025, https://economictimes.indiatimes.com/tech/artificial-intelligence/india-advocates-democratisation-of-ai-union-minister-ashwini-vaishnaw/articleshow/121957921.cms?from=mdr

[8] Cabinet Approves Ambitious IndiaAI Mission to Strengthen the AI Innovation Ecosystem, 07-March-2024; https://www.pib.gov.in/PressReleasePage.aspx?PRID=2012355

India's DPI success and its AI thinking

Digital Public Infrastructure (DPI) are shared digital systems that are secure and interoperable and that can support the inclusive delivery of and access to public and private services across society. DPI's prominent avatars in India are the Aadhaar (the world's largest biometric social identity system), Unified Payments Interface (UPI) (a real time digital payments system), handling over 18 billion transactions every month[9] and Digital verification. The success of India's Digital Public Infrastructure (DPI) has showcased the potential of public private partnership (PPP) in enabling digital empowerment, while also demonstrating equitable technology access by making public services more equitable, efficient, and easily adoptable by over 1.3 billion citizens. India's DPI has underscored India's digital technology prowess at bridging the gaps between access to public infrastructure services within physical infrastructure through digital capabilities by citizens. UPI alone has accrued total cost savings of 67 billion USD since 2016 through reduced cash dependency[10] and accounts for 85 percent of India's digital payments. The success of DPI is attributed to 'India Stack' – a moniker for a set of open APIs and digital public goods that aim to unlock the economic primitives of identity, data, and payments at population scale[11]. India stack created a set of layered capabilities, with each capability operating at population scale, at very low cost, and easily accessible and all interoperating with each other[12].

India wants to build on its DPI by leveraging the power of PPPs, strategic public investment programs, and encouraging and empowering India's AI start-up ecosystem to build population scale AI applications that utilise the power of AI for social impact for global good. India's AI approach is thus to further accelerate its digital development approach by integrating AI within its DPI, while also incorporating India's diversity and demographic complexities in religion, traditions, culture, and languages in the process.

The need for India AI Tech Stack

The need for an India-specific AI Tech Stack[13] was voiced in 2020 by India's AI standardisation committee under the Department of Telecommunications (DoT)as most AI technology development such as AI compute (AI chips and AI cloud services) and AI models are either owned by the big-tech companies or AI Labs in the United States or being supported by government funding and aligned with domestic tech corporate interests with national

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[9] India's UPI Revolution, 20-July 2025; https://www.pib.gov.in/PressNoteDetails.aspx?NoteId=154912&ModuleId=3

[10] India's Glorious Success in UPI Adoption: What is Working, What is Not and What Can be Done Better?; International Journal for Multidisciplinary Research (IJFMR); https://www.ijfmr.com/papers/2025/3/45688.pdf

[11] https://indiastack.org/

[12] What really is the 'India Stack'? Infosys top boss Nandan Nilekani explains in the simplest way possible, 12-May-2023; https://www.businesstoday.in/latest/corporate/story/what-really-is-the-india-stack-infosys-top-boss-nandan-nilekani-explains-in-the-simplest-way-possible-380991-2023-05-12

[13] The Proposed Indian AI stack hinges on the five main horizontal layers-
the infrastructure layer; the storage layer; the Compute layer; the Application layer and the Data/ Information exchange layer and one vertical layer –the Security and governance layer; Indian Artificial Intelligence Stack, 02-Sept-2020; https://www.tec.gov.in/pdf/Whatsnew/ARTIFICIAL%20INTELLIGENCE%20-%20INDIAN%20STACK.pdf

priorities in China[14]. In addition, the race for AI dominance triggered export bans[15] of advanced AI chips by the United States, along with export controls on rare-earth metals[16] critical for AI hardware by China. The India stack thinking thus hinges on three objectives: First, a sovereign need for India-specific AI language models, secure Indian AI datasets, and compute infrastructure. Second, the performance of global AI models such as ChatGPT and others with Indian languages are dismal and are not representative of Indian culture, tradition, or social context. Lastly, to cater and solve for India-specific requirements and challenges, an IndiaAI Tech Stack is viewed as a solution catering to both the demand and supply side of India's AI ecosystem.

India is already undertaking AI tech stack investments and New Delhi has initiated programs such as the India Semiconductor Mission (ISM)[17] and the National Super Computing mission (NSM) to further strengthen the AI compute layer through support for AI chip fabrication and enabling high-performance compute (HPC) respectively.

Public-private partnerships (PPP) in India's AI ecosystem

India's PPPs in AI pursue the core public investment route, joint Private-Public investments and also collaborations between public and private entities. The PPP mode is to strengthen the overall AI tech stack in India. The IndiaAI mission allocated 50 percent of its program budget or roughly 600 million USD for the provision of AI compute. It follows an empanelling[18] process inviting private players to provide AI services on cloud and the government offering these AI services as subsidies to academia, start-ups, the research community, and public sector agencies on a case-by-case basis. Both Indian and foreign companies are eligible for empanelment. The PPP approach has also been undertaken to aid the development of indigenous IndiaAI large language models (LLMs). Four Indian start-ups Sarvam AI[19], Soket AI, Gnani AI, and Gan AI have been selected with specific objectives to build India's indigenous sovereign LLMs[20] and provided access by the government to compute infrastructure and public datasets to train the Indic LLM models.

The Indian Ministry of Electronics and IT (MeitY) has also made strategic public investments in language technologies to unify India's language diversity (India has 22 official languages with a complex script base). The Indian languages initiative BHASHINI[21]

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[14] AI in China: A Sleeping Giant Awakens, 22-May-2025, https://www.morganstanley.com/insights/articles/china-ai-becoming-global-leader

[15] Department of Commerce Rescinds Biden-Era Artificial Intelligence Diffusion Rule, Strengthens Chip-Related Export, 05-May 2025; Controlshttps://media.bis.gov/sites/default/files/documents/05.07%20Recission%20of%20AI%20Diffusion%20Press%20Release.pdf

[16] China has a powerful card to play in its fight against Trump's trade war, 15-April-2025; https://edition.cnn.com/2025/04/15/business/china-trumps-trade-war-rare-earth-intl-hnk

[17] India Semiconductor Mission, https://ism.gov.in/

[18] IndiaAI Compute Capacity, accessed 16-June 2025, https://indiaai.gov.in/hub/indiaai-compute-capacity

[19] The Government of India selects Sarvam to build India's sovereign large language model; 26-April-2025, https://www.sarvam.ai/blogs/indias-sovereign-llm

[20] India's Common Compute Capacity Crosses 34,000 GPUs, 3 More Startups to Develop and Deploy Indian Foundation Models, 30-May-2025, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2132817

[21] An initiative by the Ministry of Electronics and IT (MeiTY) established under the Digital India Cooperation (DIC) in 2022. BHASHINI is an abbreviation for "Bhasha Interface for India", https://www.meity.gov.in/ministry/our-organisation?page=1

('BHASHA (language) INterface for India) operates in 22+ Indian languages and provides translation and transcription services to access government and citizen services. In addition, many on-going government programs are adopting AI technology to improve and widen the scope of public service delivery by adding multilingual chat and voice prompt response; such as Kisan-eMitra[22] (translates to farmers e-friend) a multilingual agriculture assist voice-based AI chatbot operating in 11 Indian languages. The government is also supporting multi-disciplinary AI investments such as BharatGen[23], a first of its kind government-funded multimodal initiative to deliver a suite of foundation models in language, speech, and computer vision as a public good harnessing social equity[24] and involving multiple top-tier technology institutions.

The IndiaAI mission has entered numerous partnerships and collaborations through memorandums of understanding (MoU), agreements to power the IndiaAI ecosystem and build specialised AI capacities. Microsoft, Meta, and Intel have each signed MoUs with MeitY to adopt and develop AI in social sectors, to advance open-source AI innovation and R&D[25], to drive initiatives for good governance and social impact[26], to set-up AI productivity labs, and to establish a centre for generative AI[27]. Google Cloud supports the AI-powered iGOT Karmayogi[28], a capacity development platform offering personalised learning pathways for civil servants. New Delhi is also targeting AI skillsets for the 8 million youth entering India's workforce every year. 27 'IndiaAI Labs'[29] are being established in tier 2/ tier 3 cities to train young people in AI[30] and centres of excellence are being established to promote rural AI innovation[31]. Microsoft is supporting to provide AI skilling opportunities for 2 million youth in India[32]. OpenAI, through another MoU with MeitY, launched OpenAI Academy[33], an education platform providing access to AI education tools

[22] Kisan-eMitra is a multilingual voice based chatbot supporting queries and grievance redressal of non-agricultural landholder farmers in 11 Indian languages. These farmers are beneficiaries of the PM Kisan Samman Nidhi Scheme; KISAN E-MITRA and IoT enabled systems to improve crop productivity, 01-Apr-2025; https://www.pib.gov.in/PressReleasePage.aspx?PRID=2117392

[23] Launch of BharatGen: The first Government-funded Multimodal Large Language Model Initiative, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2060437

[24] Launch of BharatGen: The first Government supported Multimodal Large Language Model Initiative, https://dst.gov.in/launch-bharatgen-first-government-supported-multimodal-large-language-model-initiative

[25] IndiaAI at MeitY & Meta collaborates to advance Open Source AI Innovation, R&D and Skill Development in India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2068251

[26] Intel India, IndiaAI Mission tie up to bolster AI capabilities and skilling, 02-May-2025, https://www.business-standard.com/industry/news/intel-india-indiaai-mission-tie-up-to-bolster-ai-capabilities-and-skilling-125050200903_1.html

[27] Government of India Expands AI-Driven Skilling, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2113095#:~:text=Union%20Cabinet%20led%20by%20Hon,with%20the%20country's%20development%20goals

[28] Mission Karamyogi, https://www.digitalindia.gov.in/initiative/mission-karmayogi/

[29] National Institute of Electronics and Information Technology, https://www.nielit.gov.in/content/introduction-3

[30] Intel Joins IndiaAI Mission To Train Youth, Support AI Governance And Innovation, 02-May-2025; https://www.businessworld.in/article/intel-joins-indiaai-mission-to-train-youth-support-ai-governance-and-innovation-555605

[31] IndiaAI and Microsoft join hands to harness Artificial Intelligence's potential for inclusive development and economic transformation https://www.pib.gov.in/PressReleasePage.aspx?PRID=2091170

[32] IndiaAI and Microsoft join hands to harness Artificial Intelligence's potential for inclusive development and economic transformation https://www.pib.gov.in/PressReleasePage.aspx?PRID=2091170

[33] OpenAI Academy: Future Skills for India, 05-June-2025; https://academy.openai.com/public/events/openai-academy-future-skills-for-india-

to Indian developers, start-ups, and innovators. India's software association body NASSCOM is also working with the government to support Re-skilling/Up-skilling of IT resources in AI and other emerging technologies through programs such as the 'FutureSkills PRIME'[34]. Most recently, the Gates Foundation signed an MoU with the IndiaAI mission to advance the use of AI for social good[35].

Several Indian states are also undertaking public and private investments in AI. The state of Telangana in collaboration with the Japan International Cooperation Agency (JICA) launched the Telangana Data Exchange (TGDeX) platform, the first State-led digital public infrastructure for AI[36]. The state of Haryana in partnership with the World Bank is developing a 'Global AI Centre'[37] with a focus on healthcare, smart cities, cybersecurity, and transportation. The state of Karnataka, home to India's leading tech ecosystem, is enhancing AI development with an AI Centre of Excellence in Bengaluru and state's Global Capability Centres (GCC) policy targets 350,000 AI jobs by 2029. Similarly states such as Maharashtra, Gujarat, and Uttar Pradesh are undertaking key AI initiatives to address state specific challenges and integrating AI into digital finance, governance, industrial automation, and smart city projects; for example, providing farmer advisory services[38], AI-based ground water monitoring system[39], land-use planning, student reading assessment[40], interactive coding platforms etc.

India's AI competencies

India possesses three AI competencies: the talent, skillset, and innovation culture that can propel the democratisation of AI technology on a global scale. Back in 2020, India's National Education Policy (NEP) introduced requirements for schools to include coding and AI in student curriculum[41]. India is currently home to over 600,000 AI professionals[42] or 16 percent of the world's AI talent and is expected to overtake the US as the world's

i3lgh1gsot?au-toRsvp=true&agenda_day=6830e852e5dbe3f560932a0e&agenda_track=6830e852e5dbe3f560932a23&agenda_stage=6830e852e5dbe3f560932a14&agenda_filter_view=stage&agenda_view=list

[34] FutureSkills PRIME Projects, https://www.nielit.gov.in/chennai/content/future-skill-projects

[35] IndiaAI Mission, Gates Foundation Sign MoU To Harness AI For Social Good; 08-July 2025; https://www.businessworld.in/article/indiaai-mission-gates-foundation-sign-mou-to-harness-ai-for-social-good-562764#:~:text=%E2%80%9CIndiaAI%20and%20The%20Gates%20Foundation,healthcare%2C%20agriculture%2C%20and%20education.

[36] First State-led digital public infra for AI TGDeX set for launch in Telangana on July 2; 01-July-2025; https://www.thehindu.com/news/cities/Hyderabad/first-state-led-digital-public-infra-for-ai-tgdex-set-for-launch-in-telangana-on-july-2/article69756528.ece

[37] Haryana to get AI centre with WB aid; 30-Nov-2024; https://timesofindia.indiatimes.com/city/chandigarh/haryana-to-establish-global-ai-centre-with-world-bank-support/articleshow/115823447.cms

[38] Project VISTAAR (Virtually Integrated System To Access Agricultural Resources), 04-Feb-2025, https://www.pib.gov.in/PressReleasePage.aspx?PRID=2099755

[39] Karnataka to leverage AI to solve Bangalore water scarcity, 24-Apr-2024, https://indiaai.gov.in/news/karnataka-to-leverage-ai-to-solve-bangalore-water-scarcity

[40] WadhwaniAI, Oral Reading Fluency, https://www.wadhwaniai.org/programs/oral-reading-fluency-ai-solution/

[41] Steps taken by the Government to use artificial intelligence for education transformation, 15-Mar-2021; https://www.pib.gov.in/Pressreleaseshare.aspx?PRID=1704878

[42] Whitepaper, ‚India's AI Leap' BCG Perspective on Emerging Challenges, June 2025, https://media-publications.bcg.com/India-AI-Leap-BCG-Perspective.pdf

largest pool of programming talent[43]. India is also leading the open-source developer community[44] (GitHub) and is responsible for 24 percent of total open-source AI projects contributing to early experimentation and widespread, trusted adoption of AI. All of this makes India the go-to AI talent nation of the world.

Second, India self-reported the highest AI skill prevalence globally[45] and recorded the world's highest year-on-year growth in AI hiring at 33.4 percent in 2024[46]. Thus, Indians are not only upgrading their AI skillsets but are also increasingly getting hired. Third, India's start-up and unicorn ecosystem is the third largest in the world and the most diverse with over 150,000 start-ups with over 4,500 AI-focused start-ups[47]. This ecosystem adds between 100 to 200 new AI-centric businesses[48] every month highlighting India as a compelling AI market. In addition, Indian AI start-ups are addressing key social challenges in areas of education, healthcare, and agriculture; such as Qure.ai, which supports the Department of Health Research in India with AI-driven screening solutions for tuberculosis[49] (TBs) early-stage detection[50] (India is home to 26 percent of the world's TB patients[51]). Thus, the AI solutions coming out of India shall in-turn support addressing the global developmental challenges.

AI to strengthen the Indo-German developmental agenda:

Germany's High-Tech Strategy of 2025 aims to put AI into practical applications[52], and the new government's coalition agreement seeks to make Germany an 'AI nation'[53]. In his inaugural public address, Dr. Wildberger, the Federal Minister of Digital Affairs, focused on three themes: the digital state, digital infrastructure, and the economy[54], centralizing and cohering the digital developmental agenda for Germany. An AI-focused technology partnership between the Federal Ministry for Digitalization and Government Modernisation

[43] AI and globalisation are shaking up software developer's world, 29-Sept-2024 https://www.economist.com/business/2024/09/29/ai-and-globalisation-are-shaking-up-software-developers-world

[44] https://github.blog/news-insights/octoverse/octoverse-2024/

[45] Human Development Report 2025, A matter of choice: People and possibilities in the age of AI, Figure 5.8, p-151; https://hdr.undp.org/system/files/documents/global-report-document/hdr2025reporten.pdf

[46] Artificial Intelligence Index Report 2025, Chapter 4: Economy, Figure 4.2.13, p-19; https://hai.stanford.edu/assets/files/hai_ai-index-report-2025_chapter4_final.pdf

[47] India's AI Leap, Boston Consulting Group Perspective on Emerging Technologies, June-2025; https://media-publications.bcg.com/India-AI-Leap-BCG-Perspective.pdf

[48] Boom in AI fuels a flurry of startups, 30-May-2025; https://www.livemint.com/ai/ai-startup-zepto-razorpay-sarvam-ai-indiaai-mission-digi-yatra-peak-xv-kpmg-chatgpt-gen-ai-health-agri-robotics-cloud-11748503343627.html

[49] Qure.ai increases TB detection, while saving costs, shows evaluation in India, 24-March-2025; https://www.qure.ai/news_press_coverages/Qure.ai-increases-TB-detection-while-saving-costs-shows-evaluation-in-India

[50] India accounts of 27% of world's TB cases, https://dghs.mohfw.gov.in/national-tuberculosis-elimination-programme.php

[51] World Health Organisation, Global Tuberculosis Report 2024; https://www.who.int/teams/global-programme-on-tuberculosis-and-lung-health/tb-reports/global-tuberculosis-report-2024/tb-disease-burden/1-1-tb-incidence#:~:text=In%202023%2C%20eight%20countries%20accounted,3).

[52] Federal Government Report on the High-Tech Strategy 2025, https://www.bmbf.de/SharedDocs/Publikationen/DE/FS/657232_Bericht_zur_Hightech-Strategie_2025_en.pdf?__blob=publicationFile&v=2

[53] The role of artificial intelligence in the 21st legislative period: an evaluation of the coalition agreement, 11-04-2025; https://www.noerr.com/en/insights/the-role-of-artificial-intelligence-in-the-21st-legislative-period-an-evaluation-of-the-coalition-agreement

[54] https://bmds.bund.de/aktuelles/aktuelle-meldungen/28052025-bundesdigitalminister-auf-der-digitalmesse-republica-2025

(BMDS) and India's Ministry of Electronics and IT (MeitY), the IndiaAI mission, overarching the following four core thematic areas would strengthen the AI-led development initiatives and strengthen the adoption/implementation of #AIforAll for the common good.

1. **AI infrastructure technical cooperation:** India and Germany are hot-ticket destinations for AI infrastructure investments in data centres, chip development, and LLMs. A technical cooperation between India and Germany through knowledge sharing on efficient construction, engineering, and installation services for sustainable and green AI data centres would power the Indian-German Green and Sustainable development partnership[55]. Germany has also created and exclusively trained an all-German large-scale language model on German language datasets[56] and India's sovereign Indic LLM models shall be up and running by end of 2025. Thus, knowledge exchange on LLMs and language technologies in general will contribute to the advancement of indigenous LLMs, a big-challenge for the low-and-middle income economies (LMICs), due to the lack of indigenous local language models.

2. **Research and development (R&D):** Germany and India commemorated 50 years of the 'Agreement on Cooperation in Scientific Research and Technological Development' in 2024. In addition, the Indo-German 2+2 collaboration model[57] with academia and industries to create future-ready, innovation-driven ecosystems is already in operation. An Indo-German R&D program on basic and applied AI research through a joint funding mechanism with a focus on addressing the technical challenges of the AI tech stack, such as constraints regarding AI compute, multilingual users, access issues linked to internet connectivity, and affordability should be explored as part of the Indo-German Science & Technology cooperative program[58]. This would create research-driven public value and incentives for equitable societal AI development and opportunities for low-cost AI value creation such as DeepSeek (a Chinese open-source AI model self-credited to be developed at a fraction of the cost of ChatGPT).

3. **AI start-ups and skill-building:** Germany's demand for AI talent is projecting 70 percent of AI jobs to remain unfilled by 2027[59]. On the contrary, Germany is seeing a massive surge in AI start-ups with a year-on-year growth of 35 percent in 2024[60], seeking AI talent and skillsets. India's tier2/tier3 cities are the emerging hubs for AI talent with growing AI and digital literacy and lower operational costs. An Indo-German AI innovation corridor promoting AI talent exchange, AI start-ups collaboration, and AI skillsets needed for small and medium scale enterprises (SMEs) would address the AI talent shortage in Germany; create a vivid AI start-ups engagement network, and effectively tap into India's AI skillsets for the German SMEs, thus creating value for India and Germany.

4. **AI for global good:** India and Germany must work together to strengthen the cause of human-centred AI development, using India's developmental approach to highlight the impact of AI through population scale use-cases in social sectors and Germany's human-centric AI standards, practices, guidelines, and frameworks for responsible AI development. India and Germany should also align like-minded Global South and Global North nations in multistakeholder forums such as the United Nations (UN), the

[55] https://www.bmz.de/en/countries/india

[56] https://hpc.fau.de/2024/11/15/caidas-trains-first-all-german-large-language-model-llaemmlein/

[57] Indo-German Science and Technology Centre (IGSTC), https://www.igstc.org/home/faqs

[58] Indo-German Cooperation in Science & Technology and Education, https://indianembassyberlin.gov.in/science

[59] AI Talent Shortage Threatens Corporate Ambitions, Says Bain, 26-March-2025; https://www.ai-wire.net/2025/03/26/ai-talent-shortage-threatens-corporate-ambitions-says-bain/

[60] German AI Startup landscape 2024, https://www.appliedai-institute.de/en/hub/2024-ai-german-startup-landscape

G20, and other global technology venues by stressing the importance of human-cen-
tred, socially responsible AI development.

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