



## **Evolving AI regulation in the US, EU and China and its impact on India**

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### **INTRODUCTION:**

Artificial Intelligence (AI) is rapidly transforming the global digital economy, serving as a key driver of innovation, productivity, and competitive advantage. Investments into generative AI, the most popular form of AI, has presently reached more than \$33 billion in 2023 and represents 20% of all AI investments. Its integration into digital trade is reshaping global commerce by automating complex processes, reducing inefficiencies, and lowering traditional barriers to cross-border transactions. In this shifting landscape, major economies such as the United States, European Union, China, and India are pursuing divergent regulatory strategies to shape the growth of AI and its role in both national and global markets.

The Critical and Emerging Technologies Index<sup>1</sup> by the Belfer Center ranks countries in their Artificial Intelligence technology development based on various factors as shown in Figure 1. According to this index, the U.S. is at the top followed by China and then Europe, and then with India ranking in the 7<sup>th</sup> position. This reflects the current unique situation, wherein China and India, despite being labelled as middle and lower-income developing countries respectively, are much more advanced in their AI-tech development. India's performance is better as compared to most developed countries such as Canada, South Korea, Japan, Australia, and Taiwan. One of the factors considered in ranking these countries in the Index is their regulatory frameworks, which are vastly different across the globe.

The United States, though initially reliant on patchwork state-level regulations, recently passed the One Big Beautiful (OBB) Bill,<sup>2</sup> which imposes a ten-year moratorium on state-level AI regulation. While proponents of this Bill hail the move, calling for a unified federal framework, critics warn that lack of regulation may lead to unchecked corporate influence.

The European Union, which took the lead in adopting comprehensive AI and data privacy regulations, has now proposed deregulation through reforms to the General Data Protection Regulation (GDPR), aiming to ease compliance for mid-sized firms and spur on innovation, while still maintaining fundamental privacy protections.

China has taken a more restrictive path, strengthening regulatory control over generative AI through mandatory algorithm disclosures and tighter oversight of "deep synthesis"<sup>3</sup> technologies, which are

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<sup>1</sup> [DETS Critical and Emerging Technologies Index Report June 2025.pdf](#)

<sup>2</sup> [Text - H.R.1 - 119th Congress \(2025-2026\): One Big Beautiful Bill Act | Congress.gov | Library of Congress](#)

<sup>3</sup> Deep synthesis technology, often linked to "deepfakes," is the process of creating or modifying media such as audio, video, or photographs using artificial intelligence, especially deep learning. It makes it possible to produce fake content which is realistic looking, which could lead to moral and legal issues.

often used in deepfakes. This aligns with its broader strategy of bolstering domestic firms while limiting foreign influence. China in general keeps tight control over their domestic companies. Companies are asked to prioritize national interests, even over profits, and this is ensured, for example, through mandatory algorithm registration, data localization, and cybersecurity reviews. China's Data Security Law and Personal Information Protection Law provide state control over digital flows and also perform surveillance functions. The Chinese Communist Party (CCP), the ruling party that governs China, also clamped down on their tech industry between 2020 and 2022 by abruptly halting the listing of China's biggest IPO (valued at \$34 billion) by Ant group, and banning for-profit tutoring in core schools in 2021, devastating a \$100+ billion tutoring and ed-tech industry.

India, meanwhile, is adopting a state-supported Public Private Partnership (PPP) model to promote AI development, investing in public infrastructure and research support to enhance its global competitiveness and reduce reliance on foreign providers. It follows a more democratic and pluralistic model of governance. The Indian government does regulate its industries but the approach is typically consultative, with space for industry dialogue, public consultations, and legal challenge. The Digital Personal Data Protection Act, 2023 does have provisions for Data Localisation, but unlike the Chinese approach, it allows for greater operational flexibility for both foreign and domestic players.

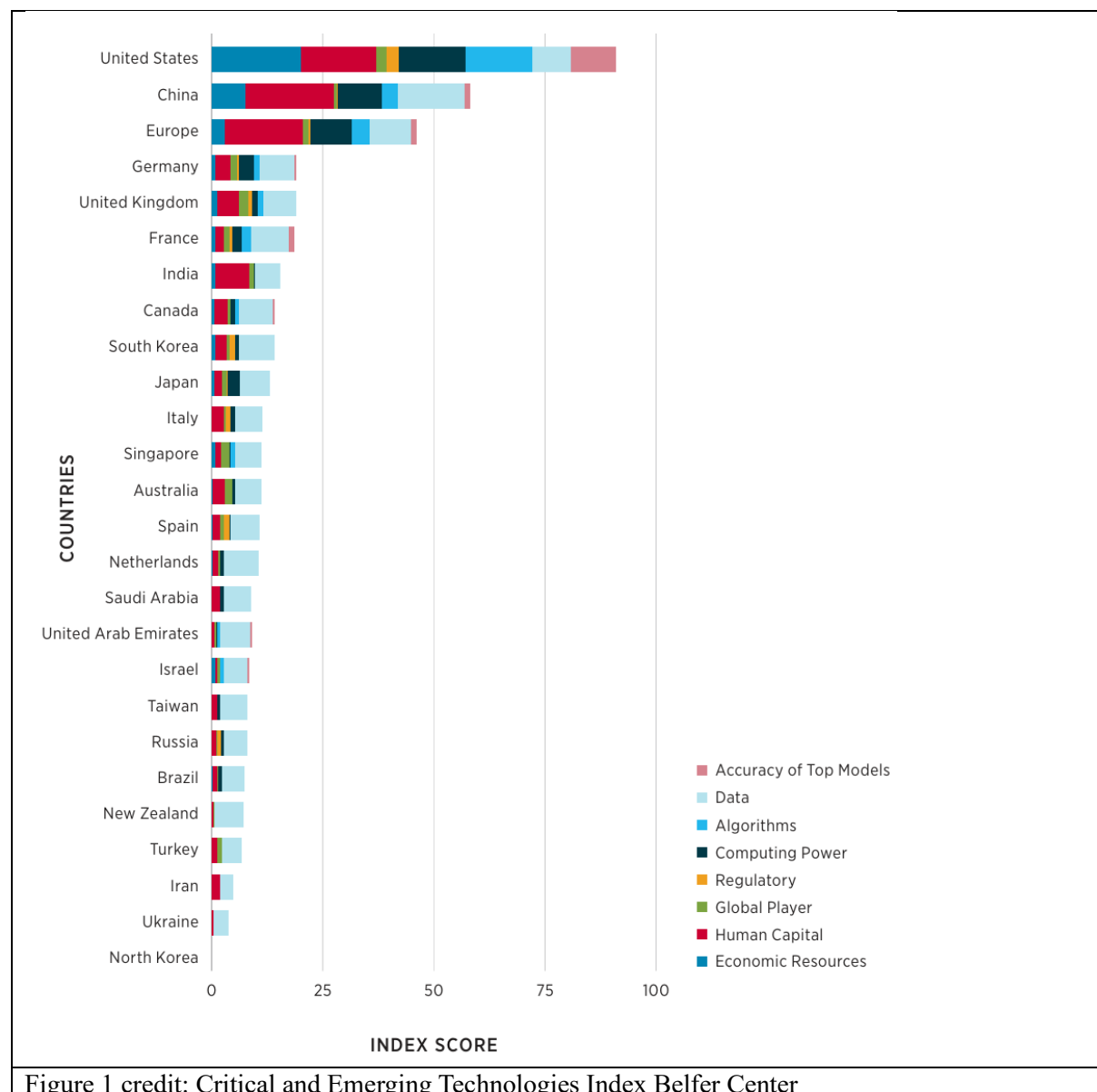


Figure 1 credit: Critical and Emerging Technologies Index Belfer Center

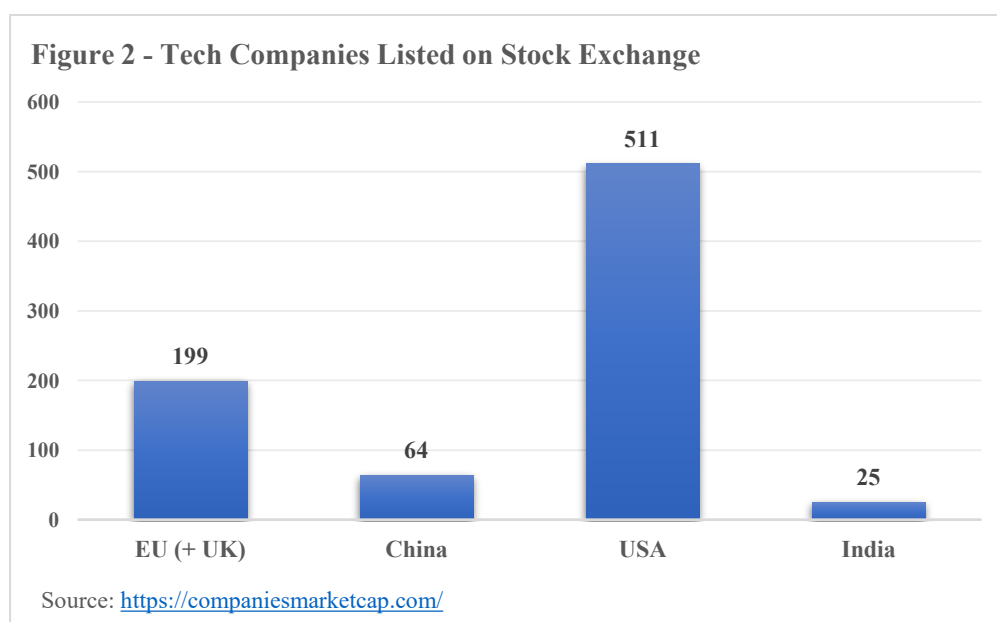
These divergent approaches highlight an emerging global divide in AI governance.

The United States and the European Union generally favour regulatory models that support private sector-led innovation. The EU has already implemented a comprehensive AI regulatory framework<sup>4</sup> which aims to provide a centralised system to support and regulate AI. The U.S. on the other hand seems to be leaning towards creating an even more free-market approach in regulating AI through the introduction of the OBB Bill, which restricts state regulations but having no federal law and not offering new proposals for federal regulations in their place.

China has adopted a centralized, state-driven model that actively shapes private sector activity, while India takes a hybrid approach – choosing to intervene only to provide foundational support in underdeveloped markets while giving the private sector significant autonomy.

These strategies reflect broader geopolitical shifts, as countries recalibrate their digital policies in response to growing technological competition and evolving concepts of digital sovereignty. This brief examines these developments and their potential implications for India.

### The USA's New AI Framework



The United States remains the global leader in the technology and artificial intelligence sectors, supported by a robust ecosystem of innovation, capital, and talent. As shown in Figure 2, the U.S. hosts over 500 publicly listed technology firms, significantly more than any other country. Figure 4 highlights 41 companies that are actively engaged in AI development and deployment. This includes major players such as Apple, Microsoft, Google, Meta, Tesla, and OpenAI, who are driving cutting-edge advancements, while companies like Nvidia, AMD, and IBM supply the high-performance semiconductor chips that power modern AI systems. The scale of the U.S. tech industry can be further appreciated by Figure 3, which shows that the combined market capitalization of the top 10 U.S. tech companies exceeds \$18 trillion, significantly outpacing the total market value of all listed tech firms in the European Union (\$13 trillion), China (\$14 trillion), and India (\$2.7 trillion). With six of the top 10 U.S. firms making major investments in AI, the sector is emerging as a key pillar of America's global economic and technological dominance.

U.S. private AI investment hit \$109.1 billion in 2024, nearly 12 times higher than China's \$9.3 billion and 24 times the U.K.'s \$4.5 billion. The gap is even more pronounced in generative AI, where U.S.

<sup>4</sup> [EU AI Act: first regulation on artificial intelligence](#) | Topics | European Parliament

investment exceeded the combined total of that of China and the European Union plus U.K. by \$25.4 billion, up from a \$21.8 billion gap in 2023.<sup>5</sup>

### **Higher Capital Investment Does Not Guarantee Better Outcomes**

High levels of capital investment do not necessarily lead to innovation or successful results. Conversely, strong ideas and efficient execution can achieve impressive outcomes even with limited funding. The cases of Builder.ai and DeepSeek illustrate this contrast.

Builder.ai, a London-based AI start-up, recently filed for bankruptcy despite raising over \$500 million from major investors like Microsoft and Qatar's sovereign fund. Once valued at \$1.5 billion, the company claimed to offer AI-driven app development. However, most of its coding was outsourced to 700 engineers in India, and its AI capabilities were overstated. It also inflated revenues by ignoring customer discounts and booking large contracts with minimal upfront payments.

On the other hand, DeepSeek, a lesser-known Chinese start-up founded in 2023, developed a competitive AI chatbot on a budget of under \$6 million. Unlike its well-funded rivals (such as OpenAI's ChatGPT and Google's Gemini), DeepSeek focused on open-source collaboration and adopting a software-led optimization approach rather than relying on advanced hardware to reduce costs. Its model delivers strong performance while using less computing power and energy.

These examples show that higher investment does not guarantee success. Innovation, transparency, and efficient resource use can often deliver more with less.

In recognition of AI's growing strategic importance, the U.S. federal government has introduced a controversial measure aimed at consolidating regulatory authority. Included in the broader legislative package known as the "One Big Beautiful Bill",<sup>6</sup> a provision institutes a ten-year moratorium on state and local governments from enacting their own AI regulations. Passed narrowly in the House (215–214), the proposal seeks to reduce regulatory fragmentation by centralizing oversight at the federal level. Supporters argue that a unified national approach is essential to avoid a patchwork of conflicting state laws that could increase compliance costs, stifle innovation, and undermine U.S. competitiveness in the global AI race. For companies operating across multiple jurisdictions, many of which are at the forefront of AI development, the Bill promises regulatory clarity and operational efficiency.

However, this move has ignited significant controversy. Currently, the United States lacks any binding federal regulation governing AI. The Biden Administration's AI Bill of Rights and Executive Order, while symbolically important, are either non-binding or have been rolled back. This means the proposed moratorium would effectively eliminate the only enforceable safeguards in place – that is, those enacted by individual states – without replacing them with any federal framework. Critics argue that the moratorium risks leaving the country unregulated for a crucial decade when AI is advancing at breakneck speed. It also puts the U.S. at risk of falling behind the EU in not only AI governance, but also in ethical oversight.

Although the Bill aims to introduce a regulatory approach similar to that of the European Union, to a certain extent, by empowering the U.S. federal government to implement economy-wide standards, it falls short due to the lack of any federal legislation or framework. This centralized framework is intended to be more efficient than a patchwork of state-level, sector specific regulations, which can fragment the single market and increase the cost of doing business.

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<sup>5</sup> [The 2025 AI Index Report | Stanford HAI](#)

<sup>6</sup> [US state AI regulation ban: Trump's One Big Beautiful Bill What a 10-year ban on state AI regulation really means](#)

However, lack of existing federal regulation means that this “AI pre-emption clause” is seen by some as a high-stakes gamble: it could centralize the U.S. AI policy under one national banner, but potentially at the cost of democratic accountability and consumer protection. What supporters call a “light-touch” approach, critics describe as a “no-touch” regime that allows Big Tech firms to shape the future of AI largely on their own terms, with minimal external constraints.

Procedurally, the Bill may face challenges under the Senate’s Byrd Rule, which restricts non-budgetary provisions in reconciliation bills, and constitutionally, it faces scrutiny under the Tenth Amendment, which states that powers not delegated to the federal government are reserved to the states, and the anti-commandeering doctrine, which prohibits Congress from compelling state governments to adopt or refrain from enacting legislation.

The Supremacy Clause, which declares federal law to be superior to state law in case of any conflict between them, also cannot be utilised by Congress in this instance as the proposed moratorium explicitly prohibits states from legislating on matters that fall directly under their jurisdiction, i.e. consumer protection, and protecting citizens from harmful commercial exploitation. Furthermore, the proposal does not create any federal rights or standards in the absence of state regulation, and absent such federal legislation, the moratorium clause may fall afoul of the Tenth Amendment by improperly intruding on state sovereignty.

Unless Congress moves swiftly to craft and implement a strong, enforceable federal AI framework, the political and constitutional backlash from states, lawmakers, advocacy groups, and even some members of the Republican Party may render the moratorium provision unviable—both procedurally and substantively. In a letter led by both Democratic and Republican representatives, the 260 lawmakers emphasise how AI impacts local communities and that “AI will raise some of the most important public policy questions of our time, and it is critical that state policymakers maintain the ability to respond”, highlighting the importance of state autonomy in AI policymaking.<sup>7</sup> Additionally, 40 state attorneys general have also sent a letter to Congress, urging members to reject the proposed moratorium, and calling it “irresponsible”, “sweeping”, and “wholly destructive”.<sup>8</sup> In the meantime, the proposal stands as a flashpoint in the broader debate over how to balance innovation with democratic governance in the age of artificial intelligence.

### **The EU’s Proposed Simplification of GDPR**

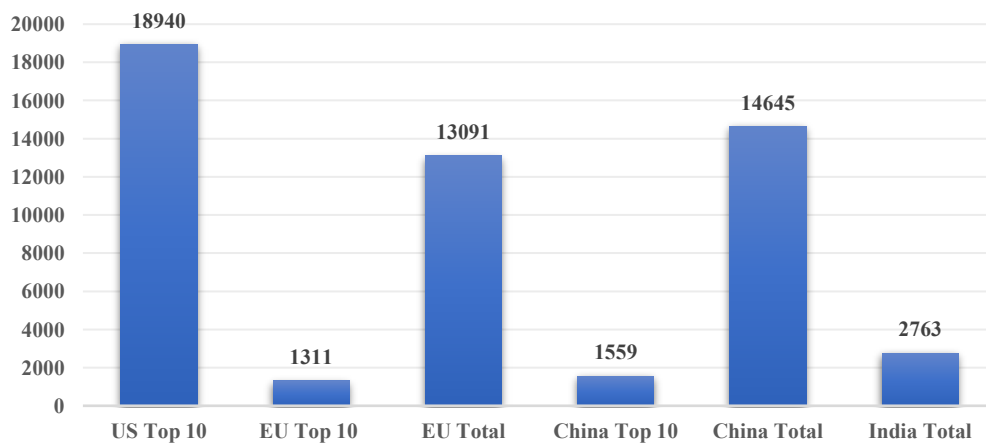
The European Union, along with the United Kingdom, has 199 publicly listed technology companies (Figure 2), and only one directly engaged in artificial intelligence (Figure 4). Over the past few decades, the region has steadily lost ground in the global tech race to the United States, with Chinese and Indian firms also gaining momentum. As depicted in Figure 3, the total market capitalization of all European tech firms falls short not only of the top 10 U.S. tech companies but also trails behind China. Once-dominant European players such as Nokia, Siemens, and Ericsson have also seen their influence diminish recently. While companies like SAP, Spotify, and ASML remain competitive, the relatively small number of major tech firms across 27 developed EU nations reflects a growing competitiveness gap – particularly in consumer technology – with the region relying heavily on American and, increasingly, Chinese platforms.

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<sup>7</sup> [State Policymaker Coalition Letter - Oppose AI Pre-emption](#)

<sup>8</sup> [letter-to-congress-re-proposed-ai-preemption- final.pdf](#)

**Figure 3 - Total Marketcap (in Billion USD)**



Source: <https://companiesmarketcap.com/>

Although there may be numerous reasons for this, one key structural challenge is Europe's complex regulatory environment, which has often made it difficult for start-ups to thrive. The Draghi Report addressing EU competitiveness highlights that EU productivity is falling further behind the US and improving slower than many Asian markets, particularly China. Furthermore, the Report identifies that regulatory barriers to scaling up are particularly onerous in the tech sector, especially for young companies, and the complex, costly, and often fragmented regulatory requirements - ranging from filing for intellectual property rights to limitations on data storing and processing - effectively discourage young innovative tech companies from operating in the EU at all.<sup>9</sup> The report also states that GDPR has been implemented with a large degree of fragmentation, thus undermining the EU's digital goals. The GDPR has also raised the cost of compliance for smaller tech firms. A study, titled "The Short-Run Effects of the General Data Protection Regulation on Technology Venture Investment",<sup>10</sup> found that European ventures experienced a marked drop in both the number and value of financing deals after the GDPR's 2018 implementation, particularly in younger, data-driven, and consumer-facing businesses. As a result, entrepreneurs frequently move their ventures to the United States, attracted by a more agile start-up culture, easier access to capital, and a more permissive regulatory climate.

To address these burdens, the European Commission's fourth "Omnibus"<sup>11</sup> regulatory reform package introduces a new "small mid-cap" (SMC) category, targeting firms with fewer than 750 employees and capped turnover or assets. Based on EU estimates, nearly 38,000 firms are expected to benefit from exemptions and simplified GDPR obligations, most notably in regard to data processing and record keeping – obligations that will now only be required in high-risk cases. This reform is projected to save companies around €66 million (\$76 million) annually. Additional measures include relaxed rules for product conformity, digitalization of paperwork, and extended timelines for due diligence in the battery sector.

Complementing these deregulatory efforts is the landmark EU Artificial Intelligence Act,<sup>12</sup> the world's first comprehensive AI regulation. The Act adopts a risk-based approach, categorizing AI systems into four levels: unacceptable, high, limited, and minimal risk. It bans systems like social scoring and real-time biometric surveillance, imposes strict requirements for high-risk systems, and sets transparency

<sup>9</sup> [The future of European competitiveness](#)

<sup>10</sup> [The Short-Run Effects of GDPR on Technology Venture Investment by Jian Jia, Ginger Zhe Jin, Liad Wagman: SSRN](#)

<sup>11</sup> [Commission proposes simplification measures to save EU businesses a further €400 million per year](#)

<sup>12</sup> [EU AI Act: first regulation on artificial intelligence | Topics | European Parliament](#)

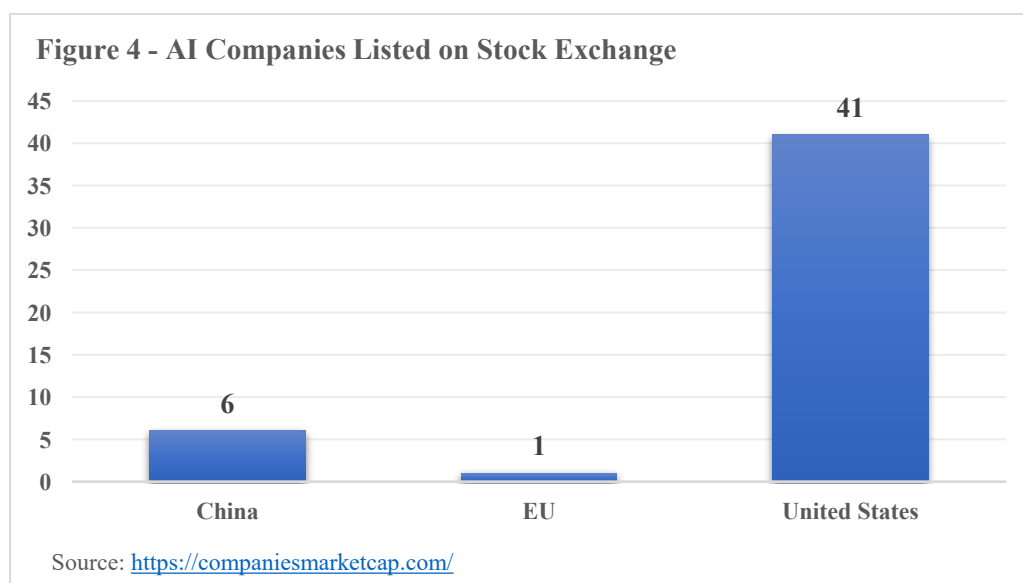
obligations for general-purpose and generative AI models. While the Act provides for regulatory sandboxes to support innovation, some Member States such as France, Germany, and Italy, have advocated for a more flexible, self-regulatory approach to avoid stifling homegrown AI development. This reflects a broader tension between the EU's role as a global standard-setter in tech regulation and the need to nurture its innovation ecosystem.

On the investments side, the EU has also launched an ambitious €200 billion (\$230.2 billion) AI Continent Action Plan to scale AI infrastructure and catch up to global competitors. This includes the development of five AI “gigafactories,” each expected to house 100,000 advanced AI chips, aiming to triple Europe’s datacentre capacity in the next five to seven years. These facilities will be accessible to start-ups for free when used for innovation, with commercial access offered on a pay-per-use basis. The initiative mirrors the public-private success of CERN and is intended to provide high-performance computing power, data access, and talent concentration under one roof.

To get an idea of big EU’s AI commitments are, India’s capital outlay for defence in the recent Fiscal budget is around Rs. 1.8 lakh crore (\$21 billion), whereas the EU’s AI plan converts to around Rs. 18 lakh crores (roughly \$214 billion), which is 10 times the defence capital outlay. This move is a reflection of the fact that EU is getting left behind in the Technology and AI industry and now are taking measures to rectify it. This also shows the sheer scale of investment that developed countries are planning to put into their AI industry. India as a developing country might not be able to match the scale of investment of developed countries but as highlighted by the Builder.ai and DeepSeek example above, the quantum of funds does not always guarantee equally substantial outcomes.

Despite the scale of investment, experts caution that money alone will not close the gap. The EU’s data and computer infrastructure still lags far behind both the U.S. and China. European generative AI start-ups, which span more than 130 across the continent, have raised just over \$5 billion in total, compared to \$161 billion raised by U.S. firms. The issue will not be resolved with investment alone, as regulatory constraints and limited access to energy also hamper growth. For example, some countries like the Netherlands and Germany have imposed moratoriums or restrictions on datacentre expansion in order to meet decarbonization targets. Another important factor is talent shortages and cumbersome visa regimes, which only further constrain start-up growth.

### China’s Increasing State Oversight on AI



China has rapidly emerged as a formidable force in the global technology landscape. Leading tech giants such as BYD, Tencent, Alibaba, Huawei, and ByteDance have attained international prominence over



the past decade, reflecting the scale and ambition of China's digital economy. As seen in Figure 2, China has 64 publicly listed technology companies, with 6 of them operating directly in the artificial intelligence domain (Figure 4). The total market capitalization of Chinese tech firms now surpasses that of the European Union (Figure 3) and is significantly greater than India's, underscoring its growing influence. The country's latest AI chatbot, DeepSeek, has drawn global attention for delivering performance comparable to top-tier Western models while operating at much lower computing power and cost, highlighting China's capacity to innovate even under resource constraints.

This technological rise, however, has been closely shaped by a state-driven policy model that combines strong industrial support with tight regulatory controls. The Chinese government has historically restricted foreign tech players while extending subsidies and market advantages to domestic firms. China has also established one of the most comprehensive regulatory regimes for artificial intelligence. Key regulations include the Administrative Provisions on Algorithm Recommendation for Internet Information Services (effective March 2022), which governs the use of algorithmic recommendation systems, including generative and synthetic algorithms, and the Provisions on Management of Deep Synthesis in Internet Information Services (effective January 2023), which specifically target deep synthesis technologies such as deepfakes. In August 2023, China introduced the Provisional Provisions on Management of Generative Artificial Intelligence Services, which provides broad oversight over all generative AI technologies. Ethical standards are enforced through measures such as the Trial Measures for Ethical Review of Science and Technology Activities and the Measures for Review of Scientific and Technological Ethics (effective December 2023), which require enterprises engaged in AI development to undergo ethics reviews. These AI-specific regulations operate alongside data governance legislation such as the Personal Information Protection Law (PIPL) and other data security statutes, creating a tightly controlled ecosystem for AI development.

In line with this strict regulatory framework, China has also implemented a mandatory algorithm registration system. In 2023, the Cyberspace Administration of China (CAC)<sup>13</sup> released its eleventh batch of approved algorithms, disclosing details of 211 models spanning applications like digital avatars, speech synthesis, and automated educational content. Under this system, companies are mandated to submit detailed technical information, undergo pre-approval, and receive a unique algorithm ID. Any AI model that could influence public opinion or mobilize social groups must be registered before deployment. This makes China one of the first countries to institutionalize algorithmic control on a national scale.

## Impact on India

India is rapidly emerging as a key player in the global technology and AI landscape. While the country lacks the concentration of global tech giants seen in the U.S. or China, it has cultivated a vibrant domestic market. Publicly listed companies such as Nykaa, Paytm, PB Fintech, Zomato, and MakeMyTrip lead in consumer and fintech innovation, while a growing wave of start-ups – such as Zepto, Swiggy, and PhonePe – are reshaping India's digital economy.

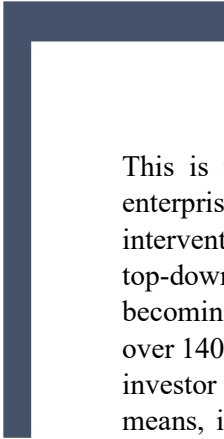
India's AI policy, outlined in the March 2025 strategy by the Ministry of Electronics and Information Technology,<sup>14</sup> emphasizes a state-led, innovation-driven approach to position the country as a global AI leader by 2047. The policy framework focuses on building computer infrastructure, promoting public-private collaboration, up-skilling, and fostering indigenous AI models, particularly in Indian languages. The IndiaAI Mission, supported by a ₹10,300 crore (around \$1.23 billion) allocation, aims to provide subsidized GPU access to start-ups and researchers and enhance domestic semiconductor capacity.

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<sup>13</sup> [Announcement of the Cyberspace Administration of China on Releasing the 11th Batch of Deep Synthesis Service Algorithm Filing Information Office of the Central Cybersecurity and Information Commission](#)

<sup>14</sup> [Press Release: Press Information Bureau](#)





This is reflective of India's "leading from behind" approach, with the state backing private AI enterprises and giving them considerable autonomy to operate and innovate, and only making limited interventions to strategically build markets and address critical gaps. This is in stark contrast to China's top-down model that involves more state control. India's approach has contributed to the country becoming the third-largest start-up ecosystem globally, with over 100 unicorns. Notably, India now has over 140 AI-focused start-ups, which have collectively raised more than \$1.5 billion, reflecting growing investor confidence in its AI potential. The government complements this growth through various means, including targeted sectoral support, streamlined compliance procedures, tax incentives, and funding initiatives.

However, India still considerably lags behind in AI investment, research and development compared to other countries. According to the 2025 AI Index Report,<sup>15</sup> published by Stanford University, China leads in AI publications and patents, while the United States leads in highly influential research and producing top AI-models. In 2024, U.S.-based institutions produced 40 notable AI models, significantly surpassing China's 15 and Europe's combined total of 3. As of 2023, China leads in total AI patents, accounting for 69.7% of all grants, while South Korea and Luxembourg stand out as top AI patent producers on a per capita basis.

The Report also notes that AI hardware is becoming faster, more affordable, and energy efficient - trends that could help India accelerate its progress in AI development.

Additionally, Indian businesses are unlikely to face adverse effect from the recent deregulation proposals introduced by the U.S. and the EU, and in fact they could potentially benefit Indian AI firms. For instance, AI regulation in the U.S. currently consists of various state and federal bills, often addressing only specific aspects, such as the California Consumer Privacy Act, which governs AI in automated decision-making. This creates a patchwork framework of individual approaches to AI regulation, with varying levels of complexity, thereby adding an additional burden on businesses to be extra vigilant regarding regulatory compliance and keeping up to date with the latest regulations in the different states in which they operate. For example, a company may deploy an AI application that is compliant in one state but in violation of the laws in another state. A single unified federal law that is applied uniformly across different states would likely ease this regulatory burden on businesses, including Indian AI start-ups wanting to expand their business to U.S. markets.

The proposed changes to EU's GDPR are also unlikely to impose any further restrictions or burdens on Indian companies. It will also likely not violate the National Treatment obligations under WTO law or pose any additional challenges to Indian businesses, as the proposal seeks to simplify existing laws, and not change how they will apply to businesses from other countries. In this case, any business that meets the requirements to qualify as an SME or SCM will be able to receive the benefits under this proposal. There is nothing in the proposal, as it currently stands, to indicate that it will only apply to EU businesses and to the exclusion of all other businesses from other countries. This could, therefore, be beneficial to Indian SMEs who are in the AI space.

Furthermore, AI's inherent dependency on hardware, combined with India's lack of home-grown large-scale AI models and hardware manufacturing capabilities, meant that India has been heavily reliant on foreign technology. This limited access to advanced AI technology and insufficient funding for research and domestic development have thus far hindered India's ability to create globally competitive AI systems. This was further compounded by the Biden administration's proposed AI Diffusion Rule, which was set to impose export restrictions on AI chips and GPUs to a number of countries, including

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<sup>15</sup> [The 2025 AI Index Report | Stanford HAI](#)

India. The chips which were restricted were Nvidia's A100, A800, H100, H800, L40, L40S, and RTX 4090 chips. However, under the Trump Administration, the U.S. has decided to rescind this rule.<sup>16</sup>

When revoking the AI Diffusion Rule, the U.S. Department of Commerce also issued a statement asserting: "The Trump Administration will pursue a bold, inclusive strategy to advance American AI technology in collaboration with trusted foreign partners, while preventing its transfer to adversarial nations. At the same time, we reject the Biden Administration's attempt to impose its own ill-conceived and counterproductive AI policies on the American people." Further, the joint statement issued after Prime Minister Narendra Modi's trip to U.S. in February 2025 also announced the launch of "U.S.-India TRUST (Transforming the Relationship Utilizing Strategic Technology)"<sup>17</sup> under which the leaders commit to develop large scale U.S. origin AI infrastructure in India. At present, India's ambitions to develop high value chips domestically, though seemingly cautiously optimistic, ultimately remain uncertain due to the Trump administration's erratic policy decisions.

India's semiconductor strategy is currently centered on the downstream segments of the value chain—Assembly, Testing, Marking, and Packaging (ATMP) and Outsourced Semiconductor Assembly and Test (OSAT)—which together account for roughly 12–15% of a chip's total value. The ₹76,000 crore (\$8.82 billion) "Semicon India Programme"<sup>18</sup> underpins this push, attracting major investments. Over \$21 billion has been committed across more than a dozen projects, expected to yield a combined output of around 91 million chips per day once fully operational. While Taiwan and Malaysia currently dominate the OSAT market with shares of over 40% and 14% respectively, India has set an ambitious goal to capture 25% of this segment within the next decade. Some of the major projects are Micron's \$2.75 billion ATMP facility in Sanand and Tata Electronics' ₹91,000 crore (\$10 billion fabrication plant in Dholera in partnership with Taiwan's PSMC. These facilities will focus on mature-node chips (28nm and above) used in automotive and industrial electronics. However, India's progress into upstream areas like advanced wafer fabrication remains constrained by export controls on critical equipment—particularly EUV lithography machines from Dutch firm ASML,<sup>19</sup> which are essential for manufacturing cutting-edge chips used in AI and other advanced technologies.

### Key Takeaways:

1. The U.S. appears to be taking a light touch approach and largely relying on self-regulation by their AI industry by restricting AI regulation by individual states, while also not proposing any federal regulation in their place. Absent such federal regulation, there are risk of unchecked growth of AI, which would could lead to adverse effects on both the economy and society at large.
2. The EU has been a leader by adopting a comprehensive regulation on AI at central level, however now there seems to be some concerns in the EU that their sectors are overregulated for example, its GDPR is increasing compliance costs for small business and leading to losses. Therefore, the EU transitioning towards simplification of their regulations to reduce burden on their businesses and encourage innovation in the EU.
3. Much like most sectors in China its AI industry is also heavily regulated. Additionally, China also provides subsidies for their AI industry. To further boost their domestic industry, they also shield them from foreign competition.
4. India is a growing player in the AI space and has been proactive in trying to grow its domestic AI industry, as well as its semiconductor industry – which plays a pivotal role in the development of AI. Additionally, India has also continued to improve its diplomatic relationship

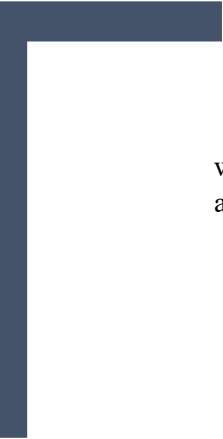
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<sup>16</sup> [Department-commerce-announces-recission-biden-era-artificial-intelligence-diffusion-rule-strengthens-chip](#)

<sup>17</sup> [United States-India Joint Leaders' Statement – The White House](#)

<sup>18</sup> [Press Release: Press Information Bureau](#)

<sup>19</sup> [ASML statement on updated US export restrictions](#)



with the U.S. to secure investments in high value semiconductors to aid in this domestic AI advancements.

## ABOUT THE AUTHOR



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## ABOUT THE CENTRE

### About CRIT

India's Foreign Trade Policy (FTP) Statement 2015-20 suggested a need to create an institution at the global level that can provide a counter-narrative on key trade and investment issues from the perspective of developing countries like India. To fill this vacuum, a new institute, namely the Centre for Research on International Trade (CRIT), was set up in 2016. The vision and the objective of the CRIT were to significantly deepen existing research capabilities and widen them to encompass new and specialised areas amidst the growing complexity of the process of globalization and its spill-over effects in domestic policymaking. Secondly, enhancing the capacity of government officers and other stakeholders in India and other developing countries to deepen their understanding of trade and investment agreements.

### About CWS

The Centre for WTO Studies which is a constituent Centre of CRIT, pre-dates the CRIT since it was created in 1999 to be a permanent repository of WTO negotiations-related knowledge and documentation. Over the years, the Centre has conducted a robust research program with a series of papers in all spheres of interest at the WTO. It has been regularly called upon by the Government of India to undertake research and provide independent analytical inputs to help it develop positions in its various trade negotiations, both at the WTO and other forums such as Free and Preferential Trade Agreements and Comprehensive Economic Cooperation Agreements. Additionally, the Centre has been actively interfacing with industry and Government units as well as other stakeholders through its Outreach and capacity-building programs by organizing seminars, workshops, subject-specific meetings, etc. The Centre thus acts as a platform for consensus-building between stakeholders and policymakers. Furthermore, the inputs of the Centre have been sought after by various international institutions to conduct training and studies.

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