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From Training Data to Patent Thickets: Generative AI, Patent Concentration and Competition in the AI Economy

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ABSTRACT

Patent filing in generative artificial intelligence has moved from a niche activity to one of the fastest-growing segments of the global patent system. The World Intellectual Property Organisation's 2026 update records that published generative-AI patent families rose from roughly 14,000 in 2023 to over 37,800 in 2025, with more than 56,000 families published across 2024 and 2025 combined, a volume exceeding the entire preceding decade. Ownership is concentrated: China accounts for the largest share, SoftBank has become the single largest corporate holder with almost 3,000 families, and a small set of conglomerates dominate the remaining top ranks. This concentration, layered onto an already dense set of overlapping claims on model architectures, training methods and specialised hardware, has revived a long-standing competition-law concern: the patent thicket. The April 2026 launch of the Shared AI License (SAIL) Foundation by Anthropic, IBM, Meta, Microsoft and Genentech, pooling more than 33,000 patent families, is the clearest institutional response to date, but its scope is narrower and its internal distribution of bargaining power more skewed than the coverage it has received suggests. This paper examines whether Indian law is equipped to respond. It reviews the Patents Act 1970 and the Competition Act 2002, situates them against the compulsory-licensing, FRAND and essential-facilities doctrines developed in the United States, the European Union, the United Kingdom and China, and incorporates CCI's October 2025 market study on AI and the Supreme Court's September 2025 order in the Ericsson/Monsanto litigation, which narrowed rather than expanded the Commission's jurisdiction over patent-licensing conduct. The paper argues that India's principal statutory tool against patent aggregation, the compulsory licence under Chapter XVI of the Patents Act, is structurally unsuited to a thicket problem, and that competition-law intervention is now a weaker prospect than earlier commentary assumed. It closes with a set of remedies assessed on their actual, rather than assumed, capacity to work.

Keywords: *Generative artificial intelligence, patent thickets, patent concentration, Shared AI License Foundation, compulsory licensing, essential facilities*

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I. INTRODUCTION

Every general-purpose technology that becomes commercially indispensable eventually produces a fight over who owns the pieces of it. Railways produced patent pools over couplers and brakes; the DVD produced pools over compression standards; 4G and 5G telecommunications produced two decades of standard-essential patent litigation still working through courts on three continents. Generative AI is entering the same phase, on a compressed timeline: large language models, diffusion models and the infrastructure supporting them have gone from research curiosities to deployed commercial products in under four years, and patent offices worldwide are examining, in bulk, inventions in a field where the boundary between an abstract algorithm and a patentable technical contribution is still worked out case by case.

The scale of the resulting patent activity is unusual even by the standards of prior technology booms,¹ and unusually concentrated: a handful of large, well-resourced entities account for a disproportionate share of filings,² and several of the largest AI-model developers have already moved to formalise that concentration into a shared licensing structure rather than litigate it out. For India, with a large AI developer base but a much smaller stock of foundational AI patents, the question is not academic: if access to core generative-AI techniques depends on bilateral licences from a small number of foreign patent holders, or on membership of a private pool with its own admission terms, Indian startups face a cost of entry unrelated to the merit of what they are building.

This paper sets out the scale of that risk, the legal tools India has to address it, and how those tools compare with approaches taken in the United States, the European Union, the United Kingdom and China. It departs from earlier treatments in three respects: first, it uses the WIPO data published in July 2026, which supersedes the 2024 landscape report and materially changes the ownership and country rankings any policy argument must be built on; secondly, it treats SAIL not as a gentle example of self-correcting private ordering but as a structure whose internal terms need close reading before concluding it reduces thicket risk for anyone outside its membership; and thirdly, it corrects an error in some Indian commentary on the Patents Act/Competition Act interaction: the Supreme Court's disposal of the 'Ericsson/Monsanto'

¹ WIPO, *Patent Trends Update in GenAI*, Technology SPARK Report (WIPO, July 14, 2026); reported in Ryan N. Phelan, *GenAI Patent Activity Nearly Triples in Two Years, According to WIPO* (PatentNext, July 28, 2026), <https://www.patentnext.com/2026/07/genai-patent-activity-nearly-triples-in-two-years-according-to-wipos-2026-report/>

² FOLEY & LARDNER, *Global AI Patent Surge: Trends, Dominance, and Strategy* (Aug. 12, 2026), <https://www.foley.com/insights/publications/2026/08/global-ai-patent-surge-trends-dominance-and-strategy/>

appeals in September 2025 left standing a Delhi High Court ruling that curtails, rather than confirms, CCI's jurisdiction over patent-licensing disputes.

A. Key concepts

A 'patent family' is the set of patent applications, across jurisdictions, protecting a single underlying invention, the standard unit WIPO uses to compare patenting activity across countries without double-counting³.

'Patent concentration' describes a market structure where a small number of entities hold a disproportionate share of the patents that matter in a field.

A 'patent thicket' is a dense, overlapping web of patent rights forcing a new entrant to negotiate with and pay multiple rights-holders before bringing a single product to market, raising transaction costs and litigation risk independently of whether any individual patent is valid or infringed.⁴

Patents covering a technology an industry has adopted as a common standard are typically expected to license on 'Fair, Reasonable and Non-Discriminatory' (FRAND) terms, and are called "standard-essential patents" (SEPs).

The 'essential facilities doctrine', developed mainly under EU law, lets a dominant firm in narrow circumstances be required to grant access to an input indispensable for competitors⁵. The object of this paper is whether firms holding patents across the AI stack can control the pace and terms on which others build AI products, and whether Indian law gives anyone a workable means of preventing that.

II. THE SCALE AND DISTRIBUTION OF GENERATIVE-AI PATENTING

WIPO's July 2026 update to its 2024 Patent Landscape Report on Generative Artificial Intelligence puts firm numbers on what had until then been an impression. Published GenAI patent families rose from approximately 14,000 in 2023 to more than 37,800 in 2025,⁶ with more than 56,000 published across 2024 and 2025 combined. As a share of all AI-related filings,

³ Lutz Mailänder, *Patent Families: Concepts and Family Information Resources* (WIPO, Aug. 6, 2014) 15, https://www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_mnl_2_14/wipo_ip_mnl_2_14_t3.pdf

⁴ Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting* in Adam B. Jaffe, Josh Lerner and Scott Stern (eds.), *INNOVATION POLICY AND THE ECONOMY*, vol. 1 (MIT Press 2001) 119.

⁵ Manu Garg and Anisha Agarwal, *The Doctrine of Essential Facilities: How Essential it is, in the Indian Market* (SCC Times, Jan. 5, 2022).

⁶ WIPO, *supra* note 1; CHINA IP LAW UPDATE, *WIPO Data Shows China's Generative AI Patent Surge Outpacing the World* (July 26, 2026), <https://www.chinaiplawupdate.com/2026/07/wipo-data-shows-chinas-generative-ai-patent-surge-outpacing-the-world-as-the-us-accelerates-from-behind/>

generative AI has grown from roughly 4.2% in 2017 to 8.7% today.⁷ Large language model patents now outnumber the generative adversarial network filings that dominated the field a decade ago: from 2014 to 2025, roughly 20,900 families were published in the LLM category against about 18,800 in the GAN category, and in 2025 alone LLM filings outpaced GAN filings five to one.⁸

The country-level picture has shifted since the 2024 report. China remains the largest source of GenAI patent families, publishing more than 43,000 across 2024 and 2025 alone.⁹ The United States posted the highest growth rate among major filers, rising from about 1,185 families in 2023 to over 4,380 in 2025, though still well behind China in volume.¹⁰ Japan has overtaken South Korea for third place, driven almost entirely by SoftBank, which published nearly 3,000 GenAI patent families, almost all in 2025, making it the single largest corporate GenAI patent holder in the world.¹¹ Alphabet, Microsoft and IBM are the only United States entities in the global top ten, and China holds a majority of the remaining top-25 positions.¹² An insurer, a state utility and a Japanese telecommunications conglomerate sitting atop a technology patent ranking says something on its own: GenAI patenting is no longer confined to firms whose core business is building AI models.

India sits fifth globally by 2024-2025 published volume, with a 2% share, publishing 929 GenAI patent families, nearly 70% of the 1,350 published across the entire preceding decade.¹³ Domestically: NASSCOM's Patent Pulse 2025 report records more than 86,000 AI-related patent applications filed in India between 2010 and 2025, over 25% of all technology patent filings in the country,¹⁴ corroborated by a joint TCS-CII figure of 83,059 AI filings between 2019 and 2025 against 3,931 in the preceding decade.¹⁵ Two NASSCOM figures deserve attention. India's AI patent grant ratio stands at only 0.37%, well below China and the United

⁷ IPWATCHDOG, *China Figures Prominently in WIPO Report Showing Generative AI Patent Activity Tripling in Past Two Years* (July 15, 2026), <https://ipwatchdog.com/2026/07/15/china-figures-prominently-in-wipo-report-showing-generative-ai-patent-activity-tripling-in-past-two-years/>

⁸ BUSINESS STANDARD, *India Ranks Fifth in GenAI Patent Filings; China at Top: WIPO Report* (Aug. 14, 2026), <https://www.business-standard.com/technology/tech-news/india-ranks-fifth-in-genai-patent-filings-china-at-top-wipo-report>

⁹ CHINA IP LAW UPDATE, *supra* note 6.

¹⁰ FOLEY & LARDNER, *supra* note 2.

¹¹ WIPO, *GenAI Innovation Soaring, With Patent Activity Nearly Tripling in Two Years* (WIPO Press Room, 2026), https://www.wipo.int/pressroom/en/articles/2026/article_0012.html

¹² CHINA IP LAW UPDATE, *supra* note 6.

¹³ BUSINESS STANDARD, *supra* note 8.

¹⁴ NASSCOM, *Patent Pulse 2025: Decoding India's Ascent in the AI Patent Landscape* (2025), <https://nasscom.in/knowledge-center/publications/patent-pulse-2025-decoding-indias-ascent-ai-patent-landscape>

¹⁵ TCS, *TCS and CII Unveil the 2025 Artificial Intelligence & IP Report for India* (Dec. 16, 2025), <https://www.tcs.com/who-we-are/newsroom/press-release/tcs-and-cii-unveil-the-2025-artificial-intelligence-ip-report-for-india>

States, so the filing boom has not translated into a comparable stock of granted, enforceable patents.¹⁶ And generative AI alone accounts for 28% of India's AI patents despite representing only 6% globally, suggesting Indian applicants are filing disproportionately into the sub-field where WIPO's data shows the fastest concentration of ownership among large foreign entities. Hardware tells a similar story. NVIDIA alone holds roughly 17,300 patents and applications globally, concentrated in GPU architecture and AI acceleration, ahead of Samsung, Broadcom and Qualcomm.¹⁷ No GenAI model runs without hardware drawn from a market this concentrated, so a complete account of the thicket risk has to treat the model layer and hardware layer as compounding, not separate, problems.

III. PATENT THICKETS, POOLS AND LICENSING EFFORTS: THE SAIL FOUNDATION IN DETAIL

The economic case against thickets is not that any individual patent is objectionable. It is that transaction costs rise faster than the number of patents: a firm negotiating with ten independent rights-holders faces something closer to the friction of ten separate deals, each with its own valuation dispute and hold-out risk, than to ten times the friction of one.¹⁸ In telecommunications, this dynamic produced two decades of SEP litigation over 3G, 4G and Wi-Fi standards; in consumer electronics it produced the DVD-format pools; in AI it is producing, so far, one large defensive pool rather than a wave of litigation.

A. The Shared AI License Foundation

On 8 April 2026, Anthropic, Genentech (Roche Group), IBM, Meta and Microsoft launched the Shared AI License (SAIL) Foundation as founding board members, with eBay and TD Bank Group as board observers and Block and Figma joining as members.¹⁹ SAIL grants every member a worldwide, royalty-free, non-exclusive licence to every other member's patents falling within a defined category of 'covered technologies', broadly, patents reading on AI foundation models and the software that trains or enables them.²⁰ The founding members

¹⁶ NASSCOM, *supra* note 14, reported in IBEF, *Over 86,000 Artificial Intelligence (AI) Patents Filed in India between 2010 and 2025: NASSCOM* (Apr. 29, 2025), <https://www.ibef.org/news/over-86-000-artificial-intelligence-ai-patents-filed-in-india-between-2010-and-2025-nasscom>

¹⁷ GREYB, *Nvidia Patents - Insights & Stats* (last updated July 23, 2026), <https://insights.greyb.com/nvidia-patents/> (last visited Aug. 16, 2026); see also LUMENCI, *Nvidia Patent Portfolio Analysis* (Mar. 25, 2026), <https://lumenci.com/patent-portfolio/nvidia/>

¹⁸ Shapiro, *supra* note 4, at 119-121.

¹⁹ GLOBENEWSWIRE, *AI Pioneers Unite to Launch the Shared AI License Foundation to Advance Foundation Model Innovation* (Apr. 8, 2026), <https://www.globenewswire.com/news-release/2026/04/08/3270111/0/en/ai-pioneers-unite-to-launch-the-shared-ai-license-foundation-to-advance-foundation-model-innovation.html>

²⁰ IP FRAY, *IBM, Meta, Microsoft, Anthropic among Founders of First-Ever Patent Licensing Group Dedicated to "Safeguarding" AI Innovation* (Apr. 8, 2026), <https://ipfray.com/ibm-meta-microsoft-anthropic-among-founders-of-first-ever-patent-licensing-group-dedicated-to-safeguarding-ai-innovation/>

together contributed more than 33,000 AI-related patent families accumulated since 2019,²¹ and SAIL's own materials describe the goal as a 'shared patent commons' giving members 'freedom of action' without diverting resources into litigation or royalty stacking.²²

Two features of SAIL's structure matter more than the headline patent count. First, membership is not free: dues run to US\$25,000 per year at the standard company rate, with discounts for smaller entities, and non-payment within sixty days terminates membership.²³ For an early-stage startup, particularly one outside the United States, it is a real entry cost layered on top of the far higher cost of the patents it would otherwise need to clear.

Second, and more significant, SAIL's licence covers foundation-model and enabling-software patents only, excluding hardware, end-user applications, and domain-specific implementations built on top of a foundation model.²⁴ A startup that builds a customer-relationship-management product on a licensed foundation model gets no protection for that product under SAIL, even as a member; only the foundation-model layer is pooled.²⁵ That carve-out matters because most commercial activity by Indian AI startups sits at the application layer, not the foundation-model layer. SAIL solves a coordination problem between large model developers who might otherwise sue each other; it does very little for anyone building products on top of those models, member or not.

The distribution of patents within SAIL is also lopsided in a way that determines who benefits from the pool. A LexisNexis PatentSight+ analysis cited by MLex found that IBM's patents make up roughly 60.2% of the technologies that qualify for licensing within SAIL and Microsoft's a further 31.7%, against 0.3% for Anthropic, even though a much larger share of Anthropic's own portfolio, around 41%, counts as 'covered technology' and is therefore exposed to being licensed out to the other four founders.²⁶ IBM and Microsoft are net exporters of value within the pool and Anthropic a net importer of obligations; a newer, smaller AI lab joining SAIL on the same terms would face the same asymmetry, magnified.

²¹ PATENT DETECTIVES, *Five AI Leaders Launch Shared AI License Foundation (SAIL) with 33,000 Foundation Model Patents* (Apr. 9, 2026), <https://www.patent-detectives.com/en/sail-ai-foundation-foundation-model-patents-en/>

²² IP FRAY, *supra* note 20.

²³ PATENTRIFF, *SAIL: Shared AI License Foundation Launched by Anthropic, Meta, Microsoft, et al* (Apr. 24, 2026), <https://blog.patentriff.com/p/sail-shared-ai-license-foundation>

²⁴ MLEX, *Foundational AI Patent Commons May Add Fuel to Race for Market Leadership* (Apr. 16, 2026), <https://www.mlex.com/mlex/articles/2466462/foundational-ai-patent-commons-may-add-fuel-to-race-for-market-leadership>

²⁵ PATENTRIFF, *supra* note 23.

²⁶ MLEX, *supra* note 24.

A pool with this structure functions less as a neutral common and more as a mechanism by which the two largest legacy patent holders extract the greatest defensive value while setting the terms, through board control, on which everyone else's patents are drawn in. None of the analysis of SAIL published so far has flagged this concentration, yet it is the single most important fact for assessing whether SAIL reduces the thicket risk facing an outsider, as opposed to simply reducing litigation risk among five well-resourced insiders. SAIL is best read as a defensive cross-licensing arrangement among incumbents.²⁷ Whether it is, on net, good or bad for competition depends on facts SAIL does not disclose: whether membership is genuinely open to a much smaller entrant outside the United States, and whether 'covered technologies' is a consistently applied rule or a discretionary gate controlled by the founding board.

B. Beyond SAIL: open licensing and defensive filing

Some AI developers have taken the opposite route, released model weights or committed not to assert certain patents against open-source or research use; these commitments reduce thicket risk only to the extent they are legally binding, since a non-binding pledge can be withdrawn at will. WIPO's data also shows agentic AI patent filing increasingly coming from banks, insurers and automotive manufacturers rather than the AI labs that dominate public discussion, so the set of entities whose patents a new entrant needs to clear is wider than a focus on the five SAIL founders would suggest.

IV. INDIA'S LEGAL FRAMEWORK: A CRITICAL READING

A. The Patents Act 1970

Section 83 of the Patents Act sets out the statutory purpose of the patent grant: patents are not conferred merely to allow the holder to enjoy a monopoly for goods it imports, and patent rights are not to be abused.²⁸ This is a statement of legislative intent rather than an operative remedy; it functions as an interpretive backdrop to the compulsory-licensing provisions that follow, not as an independent cause of action.

The operative tool is Chapter XVI. Under section 84(1), any interested person may apply for a compulsory licence three years after grant if the reasonable requirements of the public with respect to the patented invention have not been satisfied, if the invention is not available to the public at a reasonably affordable price, or if the patented invention is not worked in the territory of India.²⁹ A refusal to grant a licence on reasonable terms that prejudices the establishment or

²⁷ Shapiro, *supra* note 4, at 133-135.

²⁸ The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970), § 83.

²⁹ The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970), § 84(1).

development of a domestic industry is one of the statutory grounds for finding that the public's reasonable requirements are unmet,³⁰ and a patentee's failure to file the working statement required by section 146 (Form 27) can support an inference of non-working.³¹

On paper, this gives an Indian AI developer a route against a foreign patent holder who refuses to license a core AI technique on reasonable terms. In practice, the provision is a poor match for a thicket problem. Section 84 operates patent by patent: a successful application produces a licence to one patent, so an applicant facing ten overlapping claims would need ten separate proceedings to clear a single product. The three-year post-grant waiting period, combined with India's 0.37% AI patent grant ratio, means most AI patents filed in the last three years have not yet reached the point at which section 84 could apply; the provision is built for a mature, granted patent stock, and India's is overwhelmingly still pending. Most tellingly, section 84 has produced exactly one successful compulsory licence in the Patents Act's entire history: *Natco Pharma Ltd v Bayer Corporation* in 2012, a pharmaceutical case bearing no resemblance to a technology-access dispute between commercial AI developers.³² A remedy with a fourteen-year, single-case track record is not a credible deterrent to patent aggregation in AI.

A further gap in the existing literature is the patentability threshold itself. Section 3(k) of the Patents Act excludes 'a mathematical or business method or a computer programme per se or algorithms' from patentability,³³ a bar with no direct equivalent in current United States or Chinese practice. The Indian Patent Office's Computer Related Inventions (CRI) Guidelines, most recently subject to a 2025 draft revision on which industry bodies including the Indian Society of Artificial Intelligence and Law made submissions,³⁴ determine how far a claim reciting a machine-learning method must be tied to a concrete technical effect or hardware improvement before it clears section 3(k).

This has two consequences most commentary does not address. India's low AI patent grant ratio is not solely an examination-backlog problem; it partly reflects a genuinely stricter patent-eligibility filter than the jurisdictions producing most of the global GenAI patent stock, so a foreign patent transplanted to India carries a real rejection risk under section 3(k). And the thicket risk facing an Indian developer is asymmetric: it must avoid infringing foreign patents

³⁰ The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970), § 84(7).

³¹ The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970), § 146.

³² *Natco Pharma Ltd. v. Bayer Corporation*, Compulsory Licence Application No. 1 of 2011 (Controller of Patents, Mar. 9, 2012).

³³ The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970), § 3(k).

³⁴ INDIAN SOCIETY OF ARTIFICIAL INTELLIGENCE AND LAW, *ISAIL Submits its AI-related Comments to Indian Patent Office on draft CRI Guidelines 2025* (Apr. 16, 2025), <https://indian.substack.com/p/isail-submits-its-ai-related-comments>

granted under a more permissive standard, while its own patent must clear a stricter one. A weak domestic eligibility bar does not protect a market against a strong external one.

B. The Competition Act 2002

Section 4 of the Competition Act prohibits abuse of a dominant position, including imposing unfair or discriminatory conditions, denying market access, or tying contracts to unrelated obligations.³⁵ Unlike section 3, which carves out reasonable IP-protective conditions from its prohibition on anti-competitive agreements,³⁶ section 4 contains no equivalent IP safe harbour. The Competition Law Review Committee considered and did not recommend inserting one,³⁷ which in principle leaves the door open to abuse-of-dominance claims against a patent holder whose licensing conduct goes beyond ordinary exercise of the patent grant.

Whether that door is actually open is a question the case law has now answered, less favourably to CCI intervention than earlier commentary assumed. In 2016, a Single Judge of the Delhi High Court held, in *Telefonaktiebolaget LM Ericsson v CCI*, that the Competition Act and Patents Act operate in different fields and that CCI's jurisdiction over abuse of dominance in patent rights is not ousted by Chapter XVI remedies.³⁸ In 2020, a second Single Judge reached the same conclusion in a parallel challenge by Monsanto over its Bt cotton licensing terms.³⁹ These are the decisions most often cited for the proposition that CCI can hear patent-abuse complaints. But both were appealed, and on 13 July 2023 a Division Bench reversed course, holding that Chapter XVI is a complete code and that the Patents Act prevails where the two overlap, quashing the CCI proceedings against both Ericsson and Monsanto.⁴⁰ CCI appealed to the Supreme Court, which on 2 September 2025 dismissed its special leave petitions, principally because the underlying disputes had already settled, while leaving the broader jurisdictional question open for a future case.⁴¹ The 2023 Division Bench ruling, ousting CCI's jurisdiction over patent-licensing conduct, currently stands as the law in Delhi.⁴²

³⁵ The Competition Act, 2002, No. 12 of 2003, INDIA CODE (2003), § 4.

³⁶ The Competition Act, 2002, No. 12 of 2003, INDIA CODE (2003), § 3(5).

³⁷ MINISTRY OF CORPORATE AFFAIRS, *Report of the Competition Law Review Committee* (2019) paras. 5.1-5.9.

³⁸ *Telefonaktiebolaget LM Ericsson (Publ) v. Competition Commission of India*, WP (C) 464/2014 (Delhi HC, Mar. 30, 2016).

³⁹ *Monsanto Holdings Pvt. Ltd. v. Competition Commission of India*, MANU/DE/1078/2020 (Delhi HC, May 20, 2020).

⁴⁰ *Competition Commission of India v. Telefonaktiebolaget LM Ericsson (Publ) and connected matters*, LPA (Delhi HC, July 13, 2023); see also LEXOLOGY, *Delhi High Court Holds Patent Act to Apply and Prevail over the Competition Act* (Aug. 17, 2023), <https://www.lexology.com/library/detail.aspx?g=7fc3a495-8643-410b-85f0-54f3cbd9ff9d>

⁴¹ *Competition Commission of India v. Telefonaktiebolaget LM Ericsson (Publ)*, SLP (C) No. 25026/2023 (Supreme Court of India, Sept. 2, 2025); LEXOLOGY, *Indian Competition Law Roundup: September 2025* (Oct. 10, 2025), <https://www.lexology.com/library/detail.aspx?g=3d393295-0194-44fd-8013-2fbb5bf57448>

⁴² IP FRAY, *Patent Assertions Are Off Limits for Antitrust Watchdog: Supreme Court of India Throws Out Appeal of Ericsson's Delhi HC Win* (Sept. 2, 2025), <https://ipfray.com/patent-assertions-are-off-limits-for-antitrust->

This inverts a claim that has circulated in earlier writing: *Monsanto v CCI* does not stand for the proposition that CCI may freely hear patent-abuse complaints. Since July 2023, patent-licensing conduct belongs to the Controller of Patents and the civil courts under Chapter XVI, not to CCI under section 4. India currently has, in effect, a judicially created safe harbour for patent-licensing conduct that Parliament declined to create by statute.

A second gap in earlier treatments is the omission of CCI's October 2025 market study, commissioned in April 2024 and conducted through the Management Development Institute.⁴³ The study maps the AI value chain into an 'AI stack' running from data and compute infrastructure, through foundation models, to downstream applications, and finds that data availability and compute cost, more than patents, are the entry barriers Indian startups report facing most acutely, alongside a warning that AI-driven pricing algorithms could enable tacit collusion.⁴⁴ Its policy response is deliberately soft: advocacy and international coordination, rather than any rule change or FRAND mandate.⁴⁵ Read with the 2023 and 2025 court rulings, the 2026 picture is a regulator that has told the market it prefers self-regulation, at the same moment its jurisdiction over patent-licensing conduct has been narrowed by the courts.

V. COMPARATIVE PERSPECTIVES

A. United States

United States antitrust law starts from the position that a unilateral refusal to license a patent is not, without more, unlawful. The DOJ/FTC Antitrust Guidelines for the Licensing of Intellectual Property treat IP as broadly analogous to other property for antitrust purposes and do not treat bare refusal to license as misuse or monopolisation.⁴⁶ Courts have been reluctant to find liability absent exclusionary conduct beyond the patent grant itself.⁴⁷ Against this background, SAIL is unsurprising: American doctrine gives large incumbents little reason to expect a defensive patent pool among five major AI developers would attract scrutiny. The absence of any announced DOJ or FTC inquiry into SAIL is consistent with that reading, though

watchdog-supreme-court-of-india-throws-out-appeal-of-ericssons-delhi-hc-win/

⁴³ COMPETITION COMMISSION OF INDIA, *Market Study on Artificial Intelligence and Competition* (Oct. 6, 2025), <https://www.cci.gov.in/images/marketstudie/en/market-study-on-artificial-intelligence-and-competition1759752172.pdf>

⁴⁴ TTA.IN, *AI Market Study: CCI Adopts "Light Touch" Approach, Recommends Self-Regulation* (Oct. 6, 2025), <https://tta.in/ai-market-study-cci-adopts-light-touch-approach-recommends-self-regulation/>

⁴⁵ PRESS INFORMATION BUREAU, *Competition Commission of India Releases Market Study Report on Artificial Intelligence and Competition* (Oct. 6, 2025), <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2175607>

⁴⁶ US DEPARTMENT OF JUSTICE AND FEDERAL TRADE COMMISSION, *Antitrust Guidelines for the Licensing of Intellectual Property* (2017).

⁴⁷ See generally HERBERT HOVENKAMP, MARK D. JANIS AND MARK A. LEMLEY, *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* (2d ed. 2010) ch. 13.

not conclusive; a defensive pool of this kind can still raise rivals' costs even where no single member's conduct is independently unlawful.

B. European Union

EU law is more receptive, in principle, to compelling access to IP, but only in narrow circumstances. In *RTE and ITP v Commission* (Magill), the Court of Justice held that a dominant undertaking's refusal to license copyright could constitute an abuse where it prevented the emergence of a new product for which there was consumer demand.⁴⁸ *IMS Health v NDC Health* refined this into a three-part test: liability requires that refusal blocks a new product for which there is unmet demand, that the refusal is unjustified, and that it would exclude all competition in a secondary market.⁴⁹ This is deliberately demanding, consistent with the Court's view that ordinary exercise of an IP right is not itself an abuse. Separately, in *Huawei Technologies v ZTE Corp*, the Court set out a structured negotiation sequence an SEP holder must follow before seeking an injunction without committing an abuse of dominance.⁵⁰ No equivalent standard-setting body exists for AI foundation models, which is why SAIL's private, board-controlled definition of 'covered technologies' is doing the work a formal standards process would otherwise do.

C. United Kingdom

UK competition law follows the EU exceptional-circumstances approach on refusal to license, while UK courts have gone further on FRAND enforcement once a patent is accepted as an SEP. In *Unwired Planet International Ltd v Huawei Technologies Co Ltd*, the UK Supreme Court held that English courts have jurisdiction to determine, and if necessary, impose, global FRAND licensing terms between an SEP holder and an implementer.⁵¹ This gives UK courts a more active supervisory role than either the CJEU's negotiation-sequence approach or the US's reluctance to compel licensing at all. Nothing in Indian law gives any court an equivalent power to set FRAND terms for AI patents; the closest analogue, section 84, produces a compulsory licence, not a court-supervised royalty determination.

D. China

China's Anti-Monopoly Law generally exempts the exercise of IP rights from its prohibitions, but article 55 excludes conduct that eliminates or restricts competition by abusing IP rights, and China's guidelines specifically identify refusal to license an SEP on FRAND terms as a potential

⁴⁸ Joined Cases C-241/91 P and C-242/91 P *RTE and ITP v. Commission* 1995 E.C.R. I-743.

⁴⁹ Case C-418/01 *IMS Health GmbH v. NDC Health GmbH* 2004 E.C.R. I-5039.

⁵⁰ Case C-170/13 *Huawei Technologies Co. Ltd. v. ZTE Corp.* [2015] (CJEU).

⁵¹ *Unwired Planet International Ltd. v. Huawei Technologies Co. Ltd.* [2020] UKSC 37.

abuse of dominance. China is now, by a wide margin, the largest source of GenAI patent filings globally, and already has an SEP-specific abuse doctrine in place before its GenAI patent stock has matured. If Indian developers become dependent on licensing Chinese as well as American AI patents, the absence of any Indian FRAND doctrine leaves them negotiating from a weaker position than Chinese or European counterparts would occupy.

The comparative picture is not one of India lagging a settled international consensus; no jurisdiction has built a doctrine specific to AI foundation-model patents. What India lacks that the other four share, in some form, is any doctrine at all for compelling access to a dominant patent holder's technology outside the single-patent compulsory-licence mechanism. The 2025 court rulings have widened that gap rather than closed it.

VI. ARE THE AVAILABLE REMEDIES ACTUALLY ADEQUATE? A CRITICAL ASSESSMENT

The remedies commonly proposed for AI patent concentration in India need to be tested against the facts established above, not restated as a menu of options. Four are considered here.

A. Compulsory licensing under Chapter XVI

Not adequate, for the reasons set out in Part IV.A: a single-patent mechanism cannot clear a multi-patent thicket, the three-year post-grant wait is a poor match for a patent stock still 99.63% ungranted, and the provision's one-case, pharmaceutical, fourteen-year-old track record gives no reason to expect it will be invoked successfully in an AI dispute. A reform built around strengthening 'Form 27' disclosure addresses transparency, not the structural single-patent limitation.

B. Patent pools on the SAIL model

Adequate for its five founding members and largely irrelevant to anyone else. SAIL reduces litigation risk among incumbents; it does not extend meaningfully to hardware or downstream applications, where most Indian AI commercial activity sits. An Indian-led pool on the same template would replicate this limitation unless it departs from SAIL's structure: including application-layer patents, with membership terms scaled to genuinely early-stage entities rather than a flat fee calibrated for funded incumbents.

C. Competition Act enforcement, including an essential-facilities approach

Weaker than the existing literature assumes, and weakening further. The 2023 Division Bench ruling, left standing by the Supreme Court in September 2025, currently channels patent-licensing conduct away from CCI, and CCI's October 2025 market study signals a preference

for advocacy over enforcement. An essential-facilities argument modelled on IMS Health has no Indian precedent and would now have to clear a jurisdictional threshold that did not exist when earlier proposals for this remedy were written. This route is dormant, not available.

D. Legislative reform

The only remedy here that responds to the actual, current state of the law. A statutory amendment, to either Act, expressly preserving CCI's jurisdiction over abuse-of-dominance conduct connected to patent licensing, would reverse the 2023 Division Bench ruling's practical effect without waiting for the Supreme Court to resolve the open question on its own schedule. And a class or sector-wide compulsory-licensing mechanism, distinct from the patent-by-patent section 84 procedure, would be needed for section 84 to have any realistic application to a thicket rather than a single blocking patent. Neither requires India to adopt a full SEP/FRAND regime.

E. A remedy not previously proposed: conditioning public AI funding

India's public investment in AI, through the IndiaAI Mission and related grants, gives government a lever that does not depend on CCI's jurisdiction or section 84: a requirement that patents from publicly funded AI research be licensed on FRAND-equivalent terms as a grant condition. This is narrower and more directly enforceable than a general essential-facilities doctrine, since it operates through contract law rather than a contested jurisdictional question, and targets exactly the category of Indian-origin AI patents a domestic thicket-prevention policy can actually reach.

VII. CONCLUSION AND RECOMMENDATIONS

The scale of generative-AI patenting has not slowed; the growth curve WIPO reported in July 2026 is steeper than the 2024 one, and ownership remains concentrated among a small set of firms now formalising that concentration through SAIL rather than litigating it out. For India, the more consequential development is that the two statutory routes most often proposed as a check on that concentration, compulsory licensing under the Patents Act and abuse-of-dominance enforcement under the Competition Act, have both been shown, by events rather than argument, to be weaker than earlier assumed: the first by its own fourteen-year track record, the second by the Delhi High Court's 2023 ruling and the Supreme Court's decision not to disturb it, reinforced by CCI's preference, expressed in its October 2025 market study, for advocacy over enforcement.

This is not a call for alarm; it is a call for precision about what India currently has. It has a patent-eligibility filter under section 3(k) stricter than the filters in the jurisdictions producing most of the world's GenAI patents, a compulsory-licensing mechanism suited to isolated blocking patents rather than thickets, and a competition regulator whose jurisdiction over patent-licensing conduct is in retreat and whose declared preference is self-regulation. It does not have any FRAND-equivalent doctrine, any tested essential-facilities precedent, or any sector-wide compulsory-licensing mechanism. This puts India closer to the United States' hands-off posture than to the EU's or UK's more interventionist one, but without the deep case law that gives the US posture its predictability.

Three recommendations follow directly. Parliament should resolve the jurisdictional question the courts have left open, amending either statute to state expressly whether and how CCI's abuse-of-dominance jurisdiction applies to patent-licensing conduct. Government should use its role as an AI research funder, through the IndiaAI Mission and comparable schemes, to attach FRAND-equivalent licensing conditions to patents from publicly funded work, the one lever that does not depend on resolving the jurisdictional question first. And if India wants a domestic counterweight to SAIL, it must avoid SAIL's own structural flaws: covering application-layer as well as foundation-model patents, with membership terms calibrated to include, not merely tolerate, early-stage entrants.

None of these steps requires India to import a full SEP/FRAND regime wholesale, and none assumes a level of judicial or regulatory capacity that does not currently exist. Each targets a specific, identified failure rather than a generic concern about monopoly. The alternative, doing nothing while the legal position hardens and while SAIL's membership and 'covered technologies' definition are set entirely by its five founders, is also a choice, and on the evidence assembled here, not a defensible one.

VIII. BIBLIOGRAPHY

Primary Sources

1. The Patents Act, 1970, No. 39 of 1970, INDIA CODE (1970), §§ 3(k), 83, 84, 146.
2. The Competition Act, 2002, No. 12 of 2003, INDIA CODE (2003), §§ 3(5), 4.
3. Patents (Amendment) Rules and relevant INDIAN PATENT OFFICE, *Computer Related Inventions Guidelines*.
4. COMPETITION COMMISSION OF INDIA, *Market Study on Artificial Intelligence and Competition* (Oct. 6, 2025).

5. *Competition Commission of India v. Telefonaktiebolaget LM Ericsson (Publ)*, SLP (C) No. 25026/2023 (Supreme Court of India, Sept. 2, 2025).
6. *Telefonaktiebolaget LM Ericsson (Publ) v. Competition Commission of India*, WP (C) No. 464/2014 (Delhi High Court, Mar. 30, 2016).
7. *Monsanto Holdings Pvt. Ltd. v. Competition Commission of India*, MANU/DE/1078/2020 (Delhi High Court, May 20, 2020).
8. *Natco Pharma Ltd. v. Bayer Corporation*, Compulsory Licence Application No. 1 of 2011 (Controller of Patents, Mar. 9, 2012).
9. US DEPARTMENT OF JUSTICE & FEDERAL TRADE COMMISSION, *Antitrust Guidelines for the Licensing of Intellectual Property* (2017).
10. *Unwired Planet International Ltd. v. Huawei Technologies Co. Ltd.* [2020] UKSC 37.
11. *Huawei Technologies Co. Ltd. v. ZTE Corp.*, Case C-170/13 (CJEU 2015).
12. *RTE & ITP v. Commission*, Joined Cases C-241/91 P & C-242/91 P (CJEU 1995); *IMS Health GmbH v. NDC Health GmbH*, Case C-418/01 (CJEU 2004).

Secondary Sources

13. WIPO, *Patent Landscape Report: Generative Artificial Intelligence* (2024), together with the 2026 GenAI patent trends update.
14. Carl Shapiro, *Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard Setting*, in INNOVATION POLICY AND THE ECONOMY (2001).
15. HERBERT HOVENKAMP, MARK D. JANIS & MARK A. LEMLEY, *IP AND ANTITRUST: AN ANALYSIS OF ANTITRUST PRINCIPLES APPLIED TO INTELLECTUAL PROPERTY LAW* (2d ed. 2010).
16. MINISTRY OF CORPORATE AFFAIRS, *Report of the Competition Law Review Committee* (2019).
17. NASSCOM, *Patent Pulse 2025: Decoding India's Ascent in the AI Patent Landscape* (2026).
18. TCS & CII, *Artificial Intelligence & IP Report for India* (2025).
19. Shamnad Basheer, *Compulsory Licensing under Indian Patent Law*, SPICYIP.
20. LEXISNEXIS PATENTSIGHT+, analysis of patent concentration within the Shared AI License (SAIL) Foundation.