

**1ST NATIONAL POLICY BRIEF COMPETITION ON INTELLECTUAL PROPERTY & INNOVATION
2025**

*PROBLEM STATEMENT II: STANDARD-ESSENTIAL PATENTS (SEPs) AND TECHNOLOGICAL
INNOVATION*

**ENHANCING TAU CETI'S STANDARD-ESSENTIAL PATENT REGIME:
BALANCING INNOVATION INCENTIVES, INDUSTRIAL GROWTH AND CONSUMER WELFARE**

TEAM CODE: TEAM135e

WHITE PAPER

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-BRIEF STATEMENT OF THE PROBLEM-

OVERVIEW OF THE KEY FACTS

Tau Ceti, a rapidly developing economy of 1.2 billion citizens, has experienced transformative growth in its smartphone and digital devices market over the past decade.¹ The Government's Production-Linked Incentive (PLI) scheme has successfully attracted domestic and foreign manufacturers, with national ambitions extending to building resilient supply chains for next-generation technologies and becoming a global manufacturing hub.² Mobile communications in Tau Ceti depend on technical standards published by 3MB, a global standard-setting organisation for 3Y and 4Y network generations. Since each standard incorporates hundreds of patented technologies, implementers must license multiple standard-essential patents (SEPs) to manufacture compliant devices.³

The existing legal framework in Tau Ceti, drawn from the Indian Patents Act 1970 and Competition Act 2002, grants patentees' exclusive rights while expecting SEP holders to license on fair, reasonable, and non-discriminatory (FRAND) terms. In practice, however, significant friction has emerged. Large foreign SEP holders, such as Rune Telecommunications, have secured *ex parte* injunctions and unprecedented damages (Rs. 300 crores in one case) against both domestic and foreign implementers, prompting forum shopping and cross-border litigation.⁴ Courts have issued anti-suit injunctions (ASIs) and anti-anti-suit injunctions (AASIs), creating a jurisdictional maze that increases uncertainty and litigation costs.⁵

Tau Ceti's High Court of StarCity has revoked certain SEPs covering software-based innovations under Section 3(k), leaving uncertainty over whether computer-implemented inventions can be protected and enforced as SEPs.⁶ A domestic implementer's challenge to an SEP licensor before the competition authority was quashed by the High Court, which held that patent disputes fall exclusively under patent law, effectively sidelining antitrust oversight.⁷ Stakeholders complain of opaque licensing practices, mandatory non-disclosure agreements (NDAs), and difficulty in identifying essential patents.⁸ Domestic MSMEs and consumer groups fear that supra-FRAND royalties will stifle innovation and raise prices,⁹ while SEP holders warn that weakening patent rights will deter R&D investment and threaten future standards.¹⁰

¹ Problem Statement, Problem Statement II: Standard-Essential Patents (SEPs) and Technological Innovation, 1st National Policy Brief Competition on Intellectual Property Rights and Innovation 2025, 1.

² Problem Statement, 3.

³ Problem Statement, 2.

⁴ Problem Statement, 5.

⁵ Problem Statement, 6.

⁶ Problem Statement, 7.

⁷ Problem Statement, 9.

⁸ Problem Statement, 10.

⁹ Problem Statement, 11.

¹⁰ Ibid.

This Committee is tasked under the Terms of Reference (TOR) with evaluating whether the existing patent and competition law regime adequately addresses SEP issues. Further, it is tasked with identifying gaps, and proposing reforms that foster industrial growth, technological innovation, and consumer welfare.¹¹

STAKEHOLDER PERSPECTIVES

To provide clarity for the Committee's deliberations, the concerns of various stakeholders are listed below.

| Stakeholder | Main Concerns / Demands | Policy Implications |
|---|--|---|
| Domestic Implementers (MSMEs and Smartphone Manufacturers) | Opaque SEP licensing; high royalties; mandatory NDAs; inability to identify essential patents; fear of injunctions; and huge damages. | Need transparency (through measures including public SEP register); mandatory essentiality verification; fair access to reasonable royalty benchmarks; procedural safeguards before injunctions; and SME support. |
| Global SEP Alliance (GSA) / Foreign SEP Holders | Insist on robust patent enforcement; warn that weakening patent rights undermines investment in R&D and contribution to standards; and defend NDAs to protect licensing confidentiality. | The policy must preserve strong IP rights; ensure FRAND licensing but avoid expropriation; and consider confidentiality concerns. |
| Tau Cetian Mobile and Cellular Association (TCMCA) | Argues that supra-FRAND royalties stifle innovation and raise consumer prices; advocates for regulatory oversight and market-led benchmarking. | Seek active competition law engagement; support for SMEs; and policies to reduce royalty stacking. |
| Software Innovators and Civil Society | Worried about over-broad software patents; support open-source development; need clarity on patentability for digital innovations. | Policy must clarify Section 3(k)'s interpretation and scope to protect genuine innovations while safeguarding open-source initiatives. |

¹¹ Problem Statement, 12-14.

| | | |
|----------------------------------|---|---|
| Government and Regulators | Desire to attract foreign investment and develop domestic innovation; concerned about litigation dragging on; need to balance patent incentives with industrial policy. | Must craft a regime that aligns with international best practices and helps achieve national manufacturing goals. |
|----------------------------------|---|---|

-ADDRESSED ISSUES-

The Committee will address the following nine policy issues, distilled from the problem statement, stakeholder submissions, and jurisprudence review:

ISSUE I

Absence of SEP-Specific Licensing Architecture: Tau Ceti's legal framework treats SEPs like ordinary patents, ignoring the inability to design around standards and enabling hold-up.

ISSUE II

Disproportionate Injunctions and Hold-Up Risks: Courts have issued injunctions without ensuring FRAND negotiations, leading to high damages and market disruptions.

ISSUE III

Jurisdictional Vacuum Between Patent and Competition Law: The High Court's exclusion of the Competition Authority's jurisdiction and the Supreme Court's unresolved position leave abusive licensing practices unchecked.

ISSUE IV

Information Asymmetry and Opaque Licensing: Implementers cannot identify essential patents or compare royalty rates due to a lack of public registers and the non-disclosure of agreements.

ISSUE V

Lack of Neutral FRAND Resolution Mechanisms: Disputes are only resolved through costly court litigation, deterring settlement and increasing transaction costs.

ISSUE VI

Uncertainty Over Software-Based SEPs: Conflicting applications of Section 3(k) create unpredictability for computer-implemented inventions essential to digital standards.

ISSUE VII

Disproportionate Burden on MSMEs: Small and medium enterprises lack resources to negotiate licences and face high search and licensing costs, limiting market entry.

ISSUE VIII

Cross-Border Litigation Chaos: Competing ASIs and AASIs generate jurisdictional conflict and unpredictability, highlighting the absence of comity mechanisms.

ISSUE IX

Fragmented National Policy Vision: No unified national SEP policy aligns industrial, innovation, and consumer-protection goals with global developments. Case outcomes and settlements drive policy in piecemeal manner.

(v)

-REVIEW OF EXISTING JURISPRUDENCE, POLICY PROPOSALS AND RECOMMENDATIONS-

The governance of Standard-Essential Patents in Tau Ceti has largely evolved through judicial intervention in the absence of a comprehensive statutory framework. Consequently, courts have assumed a central role in shaping FRAND obligations, licensing practices, and enforcement standards. This section critically reviews the existing jurisprudence and policy approaches, both domestic and comparative, to assess

- i. whether judicially driven solutions are sufficient to address the structural and economic complexities inherent in SEP licensing, or
- ii. whether coordinated policy reform is required.

DOMESTIC JURISPRUDENCE (PARI MATERIA TO INDIA)

Patent Law and Injunctive Relief: Under the Patents Act 1970, a patent confers the exclusive right to prevent others from making, using, or selling the invention. In the SEP context, this has allowed patentees to seek injunctions against implementers even after undertaking to license on FRAND terms. The Delhi High Court’s decision in *Ericsson v. Lava* is a landmark in domestic SEP jurisprudence. The court awarded approximately ₹244 crore (USD 29 million) in damages and fixed a FRAND royalty of 1.05 per cent of the net selling price.¹² It endorsed the comparable licensing method, rejected the top-down approach, and held that damages should be calculated on the entire SEP portfolio rather than just asserted patents.

Competition Law Interface: The Competition Act 2002 prohibits abuse of dominance and anti-competitive agreements. However, in *Telefonaktiebolaget LM Ericsson v. CCI*, the Delhi High Court held that the CCI lacks jurisdiction to investigate alleged anti-competitive practices arising from the exercise of patent rights, reasoning that the Patents Act is a *lex specialis* providing its own remedies for abuse.¹³ The Supreme Court dismissed the CCI’s appeal, though it left the substantive jurisdictional question open for future determination.¹⁴ Crucially, the High Court’s reasoning rested in part on the fact that the original informants had privately settled their disputes with Ericsson, leading the court to conclude that the “very substratum” of the CCI proceedings had been lost. This creates a troubling precedent whereby bilateral private settlements can effectively terminate *in rem* competition proceedings that address market-wide concerns.

Section 3(k) Debate: Section 3(k) excludes mathematical methods, algorithms, or computer programs *per se* from patentability. The qualifier *per se* has been read to allow protection for software-based inventions that demonstrate a “technical effect” beyond mere computation. However, Indian jurisprudence on this standard remains deeply divided, creating persistent uncertainty, especially for SEPs.

¹² *Telefonaktiebolaget LM Ericsson v Lava International Ltd* 2024 SCC OnLine Del 2497 (Delhi High Court, 28 March 2024).

¹³ *Telefonaktiebolaget LM Ericsson (Publ) v Competition Commission of India* SCC OnLine Del 4078 (Delhi High Court, 13 July 2023).

¹⁴ *Competition Commission of India v Monsanto Holdings Pvt Ltd SLP(C)* No 25026/2023 (Supreme Court of India, 2 September 2025).

On one side, courts have endorsed the technical-effect doctrine. In *Ferid Allani v. Union of India* (2019), the Delhi High Court held that computer-implemented inventions producing a technical effect are not barred under Section 3(k), aligning Indian practice with European approaches.¹⁵ This position was reaffirmed in *Microsoft Technology Licensing v. Assistant Controller* (2023) and *Raytheon v. Controller General* (2023), where the court clarified that the earlier CRI Guidelines' insistence on "novel hardware" had no statutory basis.¹⁶

Conversely, other decisions underscore the doctrine's indeterminacy. In *BlackBerry Limited v. Controller of Patents*, the court refused protection for claims characterised as conditional logic and procedural steps lacking any technical effect.¹⁷ Yet, in another BlackBerry appeal, a different bench upheld patentability for an auto-selection media feature that enhanced device functionality beyond algorithmic processing.¹⁸ Similarly, *OpenTV v. Controller* affirmed rejection for failure to show technical advancement beyond routine computation.¹⁹ These contradictory outcomes, sometimes from the same court, reveal the absence of predictable criteria.

This uncertainty is compounded by the 2017 Computer Related Inventions Guidelines, which removed the "novel hardware" requirement but failed to define "technical effect" or "technical contribution."²⁰ A Parliamentary Standing Committee has acknowledged this gap and recommended revisiting software and AI patentability, but legislative action is pending.²¹

For SEPs, the stakes are higher. Software underpins modern standards, and erroneous grants can entrench unavoidable monopolies, while erroneous exclusions can deter genuine innovation. The technical-effect test therefore requires calibrated and rigorous application in the SEP context.

Recent SEP Settlements: Several long-running SEP disputes have recently settled, indicating judicial pressure toward negotiated outcomes. In May 2025, Philips and Vivo executed a licence agreement after five years of litigation.²² InterDigital and Oppo reached a global settlement in October 2024.²³ While settlements are desirable, opaque SEP settlements under

¹⁵ *Ferid Allani v Union of India* 2019 SCC OnLine Del 11867 (Delhi High Court, 12 December 2019).

¹⁶ *Microsoft Technology Licensing LLC v Assistant Controller of Patents* 2023 SCC OnLine Del 8198 (Delhi High Court, December 2023); *Raytheon Company v Controller General of Patents* 2023 SCC OnLine Del 6595 (Delhi High Court, October 2023).

¹⁷ *Blackberry Limited v Controller of Patents and Designs CA* (COMM-IPD-PAT) 229/2022 (Delhi High Court, 2024).

¹⁸ *Blackberry Limited v Controller of Patents and Designs CA* (COMM-IPD-PAT) 318/2022 (Delhi High Court, 2024).

¹⁹ *OpenTV Inc v Controller of Patents* (Delhi High Court, 2023).

²⁰ Office of the Controller General of Patents, Designs & Trademarks, *Guidelines for Examination of Computer Related Inventions (CRI)* (2017).

²¹ Parliamentary Standing Committee on Commerce, *Report on Review of the Intellectual Property Rights Regime in India* (161st Report, Rajya Sabha, July 2021).

²² *Koninklijke Philips N.V. v Vivo Mobile Communication Co. Ltd* (Delhi High Court, 9 April 2025); Sushant Jaiswal, 'SpicyIP Tidbit: The Philips-Vivo SEP Showdown: How a High-Stakes SEP Battle Ended in Settlement' (SpicyIP, 9 May 2025) <https://spicyip.com/2025/05/spicyip-tidbit-the-philips-vivo-sep-showdown-how-a-high-stakes-sep-battle-ended-in-settlement.html> accessed 20 December 2025.

²³ *InterDigital, Inc. and OPPO Group, Global Patent License Agreement* (29 October 2024); IPFray, 'OPPO's Next Settlement: License Agreement with InterDigital After Almost Three Years of Litigation' (18 December 2025) <https://ipfray.com/oppos-next-settlement-license-agreement-with-interdigital-after-almost-three-years-of-litigation/> accessed 20 December 2025.

NDAAs limit benchmarking and, when treated as grounds to close CCI probes, risk shielding anti-competitive licensing from scrutiny.

INTERNATIONAL JURISPRUDENCE AND POLICY

European Union: The EU offers a developed framework for SEP governance, combining competition enforcement with attempted legislative reform. In *Huawei v. ZTE* (2015), the CJEU laid down a structured negotiation framework governing SEP-based injunctions.²⁴ SEP holders must first notify the alleged infringer of the specific patent and infringement and make a concrete FRAND offer, while implementers must respond diligently by accepting, making a counter-offer, or providing security. Seeking an injunction without following this process may amount to abuse of dominance under Article 102 TFEU.²⁵

EU competition enforcement has applied these principles in practice. In *Motorola/Apple* (2014), the European Commission held that Motorola's pursuit and enforcement of an injunction against a willing licensee constituted abuse of dominance.²⁶ In *Samsung/Apple* (2014), Samsung offered commitments not to seek injunctions against willing licensees for five years, which the Commission accepted.²⁷ These decisions illustrate the role competition authorities can play in curbing SEP abuse.

At the same time, the EU experience highlights the limits of legislative intervention. The Commission's proposed SEP Regulation sought to introduce mandatory essentiality checks, an EU SEP register, and FRAND conciliation mechanisms. However, it was withdrawn in July 2025 following strong opposition from SEP holders and Member States.²⁸ This episode suggests that overly ambitious mandatory frameworks may face institutional resistance, making phased or partially voluntary approaches more feasible.

United Kingdom: The UK has emerged as a major forum for SEP adjudication. In *Unwired Planet v. Huawei* (2020), the Supreme Court held that English courts may determine global FRAND rates and grant injunctions where implementers refuse to take global licences, recognising that SEP licensing is typically portfolio-wide.²⁹ This approach was extended in *InterDigital v. Lenovo* (2023), where the court set a global FRAND rate covering multiple patent families and jurisdictions.³⁰ Implementers and developing countries argue that a single national court should not impose licensing terms for diverse global markets with differing economic and enforcement conditions.

²⁴ *Huawei Technologies Co Ltd v ZTE Corp*, Case C-170/13, ECLI:EU:C:2015:477, ECR I (CJEU, 16 July 2015).

²⁵ Treaty on the Functioning of the European Union (TFEU) art 102.

²⁶ *Motorola — Enforcement of GPRS standard essential patents* (Case AT.39985) Commission Decision C(2014) 2892 final (29 April 2014).

²⁷ *Samsung — Enforcement of UMTS standard essential patents* (Case AT.39939) Commission Decision C(2014) 2891 final (29 April 2014).

²⁸ European Commission, 'Withdrawal of Proposed SEP Regulation' (July 2025); UK IPO SEP Licensing Consultation (July 2025).

²⁹ *Unwired Planet International Ltd v. Huawei Technologies Co Ltd* [2020] UKSC 37.

³⁰ *InterDigital Technology Corporation v Lenovo Group Ltd* [2023] EWHC 539.

On the policy side, the UK IPO's 2025 consultation proposes a voluntary code of practice, essentiality checks, and better SME access.³¹ These proposals closely mirror the Committee's recommendations. The UK's choice of a voluntary, rather than mandatory, framework reflects concerns about regulatory overreach and the risk of discouraging SEP holders from engaging with UK-linked standard-setting. For Tau Ceti, the UK model supports a facilitative approach centred on a FFDRC issuing non-binding opinions, reinforced by transparency measures that incentivise compliance without legal compulsion.

United States: U.S. law treats FRAND commitments primarily as enforceable contracts, with injunctions governed by the *eBay* four-factor test requiring proof of irreparable harm, inadequacy of damages, balance of hardships, and public interest.³² In practice, this makes SEP injunctions rare, since monetary remedies usually suffice. In *FTC v. Qualcomm* (2020), the Ninth Circuit reversed a broad antitrust ruling, holding that Qualcomm's licensing practices, including its "no licence, no chips" policy, did not violate antitrust law and that breach of a FRAND commitment alone does not establish antitrust harm.³³ While this narrowed antitrust oversight of SEP holders, the case confirms that U.S. competition authorities still view SEP licensing as within their remit.

U.S. courts have also developed detailed FRAND royalty methodologies. The Smallest Salable Patent-Practicing Unit (SSPPU) approach, used in *TCL v. Ericsson* (2017), bases royalties on the smallest component practising the patent to reduce royalty stacking.³⁴ SEP holders contest this, arguing it undervalues patents enabling whole-device functionality. The unresolved SSPPU versus entire market value debate is directly relevant for any FRAND guidance issued by Tau Ceti's proposed FFDRC.

China: Chinese courts apply a fault-based approach, granting SEP injunctions only against "unwilling" licensees, while courts in Wuhan and Shenzhen have asserted jurisdiction to set global FRAND rates and issued broad anti-suit injunctions.³⁵ In *Huawei v. Samsung* (Shenzhen IPC, 2018), the court fixed a global cross-licensing rate and restrained enforcement of foreign judgments.³⁶ However, in July 2025, a WTO panel held that China's blanket ASI practice violates TRIPS by unduly restricting patent holders' rights.³⁷ China's experience shows both the appeal of assertive judicial control and the international legal risks of regulatory overreach.

³¹ Susan Keston, 'Briefing Note: UKIPO SEP Consultation' (HGF Ltd, September 2025) <https://www.hgf.com/knowledge-hub/briefing-note-ukipo-sep-consultation/> accessed 20 December 2025.

³² *eBay Inc v MercExchange, LLC* 547 US 388 (2006).

³³ *FTC v. Qualcomm Inc.*, 969 F.3d 974 (9th Cir. 2020).

³⁴ Axel Gautier and Nicolas Petit, 'Smallest Salable Patent Practicing Unit and Component Licensing – Why 1\$ is Not 1\$' (2019) 15(1) *Journal of Competition Law & Economics* 690.

³⁵ Mathieu Klos, 'China Wakes Up in Global SEP Litigation' (JUVE Patent, 29 January 2021) <https://www.juve-patent.com/news-and-stories/cases/china-wakes-up-in-global-sep-litigation/> accessed 21 December 2025.

³⁶ Adrian Emch, '*Huawei v. Samsung – A new benchmark for standard essential patent litigation in China?*' (Wolters Kluwer Competition Law Blog, 14 June 2018) <https://legalblogs.wolterskluwer.com/competition-blog/huawei-v-samsung-a-new-benchmark-for-standard-essential-patent-litigation-in-china/> accessed 8 February 2026.

³⁷ World Trade Organization, *China – Enforcement of Intellectual Property Rights (European Union v China)*, Award of the Arbitrators, WT/DS611/ARB25, 21 July 2025.

Japan: Japan's approach offers a particularly transferable model for Tau Ceti. The Japan Patent Office's Hantei system allows parties to request non-binding advisory opinions on patent scope and essentiality from panels of technical experts.³⁸ Either party to a licensing negotiation may initiate the process, and the experts assess whether the patent claims read on the relevant standard. Although not legally binding, Hantei opinions are widely accepted in practice because they provide an authoritative and impartial assessment at far lower cost than litigation. The system has been credited with facilitating settlements and reducing SEP disputes.

This mechanism is complemented by the Ministry of Economy, Trade and Industry's Good Faith Negotiation Guidelines (2022), which outline a structured protocol for SEP licensing, including duties of good-faith negotiation, concrete FRAND offers, and diligent responses from implementers.³⁹ METI has also emphasised SME support through collective negotiation guidance and a licensing helpdesk. Together, these measures show how facilitative, non-binding institutions can enhance transparency and reduce litigation without the political and constitutional risks of mandatory rate-setting.

Other Jurisdictions: Several jurisdictions offer instructive policy precedents on SEP governance. South Korea's Fair Trade Commission issued SEP licensing guidelines in 2014, recognising that SEP holders may occupy dominant positions and that abuses such as seeking injunctions against willing licensees or imposing excessive royalties fall within competition law.⁴⁰ Brazil's competition authority, CADE, similarly recommended in 2025 that FRAND compliance mechanisms and limits on abusive injunctions be incorporated into SEP governance.⁴¹ These developments reflect a broader global trend toward transparency and active competition law oversight in SEP markets. At the international level, WIPO has launched a Strategy on SEPs (2024–2026) and convened forums to facilitate exchange of national policy experiences.⁴²

Comparative experience offers clear lessons for Tau Ceti. Purely judicial management of SEPs is inadequate, and all major jurisdictions supplement courts with institutional mechanisms such as negotiation guidelines, essentiality assessments, or competition enforcement. Facilitative, non-binding models, particularly Japan's, appear most effective in lowering transaction costs without discouraging participation. Competition law remains essential to deter abusive conduct, while overly ambitious legislative interventions risk backlash, underscoring the value of phased and consultative reform.

³⁸ Japan Patent Office, *Guide to Licensing Negotiations Involving Standard Essential Patents* (June 2022).

³⁹ Ministry of Economy, Trade and Industry, *Good Faith Negotiation Guidelines* (March 2022).

⁴⁰ Korea Fair Trade Commission, *Review Guidelines on Unfair Exercise of Intellectual Property Rights* (2014).

⁴¹ WilmerHale, 'FRAND Quarterly: Navigating the Global SEP Landscape' (November 2025) <https://www.wilmerhale.com/en/insights/client-alerts/20251106-frand-quarterly-navigating-the-global-sep-landscape-november-2025>.

⁴² WIPO, 'SEP-related Legislative and Policy Measures Adopted by Member States, including Notable Case Law' <https://www.wipo.int/en/web/patents/sep-related-legislative-and-policy-measures-adopted-by-member-states-including-notable-case-law>.

-OUTPUT DOCUMENT-

1. EXECUTIVE SUMMARY

Tau Ceti's digital ambitions and aspirations to become a global manufacturing hub hinge on robust yet balanced intellectual property governance. Rapid growth in the smartphone and IoT markets has exposed structural weaknesses in the current SEP regime: opaque licensing practices, costly and protracted litigation, uncertain patentability for software-based innovations, and lack of effective competition oversight. Internationally, the CJEU's negotiation protocol, the UK's willingness to set global FRAND rates, the U.S. emphasis on contract enforcement, Japan's good-faith guidelines and the WTO's condemnation of China's ASI policy signal a shift toward transparency and balanced enforcement. Without comprehensive reform, Tau Ceti risks higher consumer prices, stalled industrial growth, deterred foreign investment, and vulnerability to aggressive cross-border litigation strategies.

This White Paper has undertaken a thorough assessment of the adequacy of Tau Ceti's existing legal and policy framework for SEPs, finding it insufficient to achieve the national objectives of fostering industrial growth, technological innovation, and consumer welfare. The Committee has identified several critical gaps including: lack of transparency, absence of neutral dispute resolution forums, unclear jurisdictional interface between patent and competition authorities, procedural gaps in injunction standards, software patent uncertainty, high transaction costs for SMEs, and absence of frameworks for international comity.

To address these gaps, the Committee proposes a comprehensive package of seven core policy recommendations. At the heart of these reforms is a public SEP registry and essentiality assessment system to improve transparency, coupled with a new FRAND Facilitation and Dispute Resolution Centre to guide negotiations and resolve disputes efficiently without imposing binding rates. Legislative amendments will clarify the interface between patent and competition law, ensuring that abusive licensing practices can be scrutinised without undermining valid patent rights. Codified procedural safeguards will prevent injunctive overreach by requiring good-faith negotiation before courts grant relief. A modernised approach to computer-related inventions under Section 3(k) will support digital innovation while preventing trivial patents. Targeted support for SMEs, encouragement of patent pools and collective licensing, and active participation in international coordination will foster an ecosystem where innovation incentives and technology access coexist harmoniously.

The pilot project in the smartphone and mobile device sector, if successful, should be extended to other areas including consumer electronics, IoT devices, and the automotive sector, where similar challenges are emerging. As Tau Ceti marches towards a digital economy and aspires to contribute to future global standards; establishing a robust, transparent, and balanced SEP regime is not merely a legal necessity but a strategic imperative for national development.

By implementing these recommendations, Tau Ceti can position itself as a leader in fair and forward-looking SEP governance. The reforms will enable SEP implementers (domestic and foreign; SMEs and MNCs) to secure necessary licences on FRAND terms with reduced transaction costs. This will facilitate downstream innovation, industrial growth, and entrepreneurship. Simultaneously, SEP holders will benefit from clearer enforcement pathways, reduced litigation costs, and a predictable legal environment. This would support continued investment in R&D and participation in standard-setting. Consumers will benefit from broader access to cutting-edge technologies at competitive prices.

2. ASSESSMENT OF ADEQUACY

Tau Ceti's current SEP framework combines strong patent enforcement with limited transparency and inconsistent competition oversight. While the regime offers rights holders powerful remedies, it lacks the institutional safeguards necessary to prevent strategic behaviour and market-wide distortions. This framework can be evaluated across five dimensions: enforcement and hold-up risks, competition law oversight, software patent uncertainty, information asymmetry, and overall adequacy.

Enforcement Regime and Hold-Up: Patent law provides robust remedies, including injunctions and significant damages, but does not condition injunctive relief on good-faith FRAND negotiations. As a result, SEP holders may obtain early, market-wide injunctions that enable hold-up against implementers locked into mandatory standards. Conversely, implementers sometimes engage in hold-out by delaying negotiations until courts are forced to determine rates. The absence of neutral, specialised forums for assessing FRAND terms or essentiality pushes parties into prolonged litigation and cross-border disputes. Recent settlements in *Philips v. Vivo* and *InterDigital v. Oppo* reflect judicial pressure to negotiate but remain ad hoc outcomes driven by litigation fatigue rather than institutional design.

Competition Law Oversight and Private Settlements: Competition enforcement in SEP markets faces a dual crisis of jurisdiction and enforceability. The Division Bench ruling in *Ericsson v. CCI*, which treated the Patents Act as a complete code excluding CCI jurisdiction, has been compounded by findings that private settlements eliminate the basis for ongoing CCI proceedings. The Supreme Court's refusal to interfere in September 2025, while formally leaving issues open, has effectively entrenched this position.

This creates a serious regulatory vacuum. CCI proceedings are *in rem* and address market-wide conduct rather than bilateral disputes. When private settlements can terminate investigations, dominant SEP holders gain incentives to neutralise scrutiny by offering favourable terms to one informant while continuing potentially abusive practices against others, particularly MSMEs that lack resources to initiate proceedings. This approach departs from both the Competition Act's public interest mandate and comparative practice. In the EU and the US, competition authorities have pursued SEP investigations independently of private settlements, recognising that regulatory concerns extend beyond individual licensing disputes.

Software Patent Uncertainty under Section 3(k): Divided jurisprudence on Section 3(k) creates acute challenges in the SEP context. Courts have reached contradictory conclusions on similar software-based inventions, and the 2017 CRI Guidelines fail to define “technical effect,” resulting in inconsistent examination practices. While uncertainty is manageable for ordinary software patents, its impact is amplified for SEPs. Because standards are mandatory, an erroneously granted software SEP creates a compulsory and unavoidable monopoly, while erroneous exclusion deprives innovators of compensation for technology that the entire industry must use.

This asymmetry demands a calibrated response. The flexibility built into Section 3(k) serves important public interests, including preventing over-patenting and preserving open-source ecosystems. At the same time, denying protection to genuinely inventive software contributions risks discouraging participation in standard-setting. A heightened application of the technical-effect test for SEPs is therefore necessary.

Information Asymmetry: Information asymmetry remains pervasive. Implementers often cannot verify essentiality, must rely on licensor representations, and are constrained by NDAs that prevent benchmarking of royalty rates. For SMEs, search and transaction costs are frequently prohibitive.⁴³ Other jurisdictions have responded with essentiality assessments, advisory opinions, and licensing platforms, while Tau Ceti lacks comparable mechanisms.

The Committee concludes that Tau Ceti’s existing legal and policy framework does not adequately address the challenges posed by SEPs. The regime combines strong enforcement rights with minimal transparency and no FRAND negotiation guidelines, enabling hold-up by SEP owners and hold-out by implementers. SEP disputes are resolved exclusively through courts, leading to high litigation costs, delays, and cross-border jurisdictional conflicts. The exclusion of competition-law scrutiny removes a crucial check against abusive licensing practices. Section 3(k) continues to create uncertainty for software-based SEPs, impeding domestic innovation. There is no support system for SMEs, and no mechanism to coordinate internationally on ASI/AASI issues. Without reform, Tau Ceti risks stagnation in its digital economy and manufacturing ambitions.

3. ADDRESSING POLICY GAPS

Based on the foregoing analysis, the Committee identifies seven critical gaps in Tau Ceti’s current legal and policy framework:

1. **Lack of Transparency:** There is no public database of SEPs registered in Tau Ceti and no mechanism to assess whether declared patents are truly essential to standards. Implementers struggle to determine which licences they need, while SEP holders may over-declare their portfolios without verification.
2. **Absence of Neutral Dispute Resolution Forums:** Disputes over FRAND terms are resolved only through costly and protracted court litigation. There is no specialised

⁴³ IICRIER, Cellular Network Standard Essential Patents: A Study of the Indian Ecosystem (ICRIER 2024).

body to facilitate negotiations, provide essential opinions, or offer efficient ADR for SEP licensing disputes.

3. **Unclear Jurisdictional Interface:** The Competition Authority's role in SEP disputes is ambiguous. Recent judgments have effectively sidelined TCCC's jurisdiction, leaving potential abuses unchecked and denying implementers recourse to antitrust remedies. This is worsened as bilateral settlements between informants and SEP holders terminate CCI proceedings, even where conduct has market-wide effects.
4. **Procedural Gaps in Injunction Standards:** Courts may issue injunctions without verifying whether SEP holders and implementers engaged in good-faith FRAND negotiations. No codified standards exist for when injunctions should be issued in SEP cases, increasing the risk of both hold-up and hold-out.
5. **Software Patent Uncertainty:** Conflicting decisions on Section 3(k) create uncertainty for computer-implemented inventions. The lack of clear guidelines on the 'technical effect' doctrine impedes both domestic innovation and the protection of legitimate software-based SEPs.
6. **High Transaction Costs for SMEs:** Small and medium enterprises face prohibitively high search and licensing costs, lack bargaining power in negotiations with large SEP holders, and have limited access to comparable licensing terms due to NDA restrictions.
7. **Lack of Framework for International Comity:** Tau Ceti's courts have issued AASIs but there is no statutory framework to manage cross-border SEP disputes, leading to forum shopping, conflicting injunctions, and unpredictability. No clear policy exists for engaging with international ADR mechanisms.

| Gap | Description | Proposed Solution |
|--|---|---|
| Lack of Transparency | Absence of a public SEP registry; no essentiality verification; over-declaration by patent holders. | Mandate SEP registration and independent assessment of essentiality. |
| Absence of Neutral ADR Forums | Disputes resolved only through courts; no mediation or expert guidance. | Create a FRAND Facilitation & Dispute Resolution Centre (FFDRC). |
| Unclear Jurisdictional Interface | Courts have ousted competition authorities; no coordination mechanism. | Clarify concurrent jurisdiction through legislation and an interim coordination protocol. |
| Procedural Gaps in Injunction Standards | Courts grant injunctions without ensuring FRAND negotiations; hold-up risk. | Codify procedural safeguards modelled on the <i>Huawei v. ZTE</i> protocol. |

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| Software Patent Uncertainty | Inconsistent application of Section 3(k); unclear patentability of technical software inventions. | Amend Section 3(k) to properly adopt the technical-effect doctrine while also providing guidelines. |
| High Transaction Costs for SMEs | SMEs face high search and licensing costs; lack bargaining power. | Offer SME support via the FFDRC helpdesk, financial assistance and safe-harbor rules for collective negotiations. |
| Lack of International Comity | No statutory framework to manage ASI/AASI conflicts; forum shopping. | Promotion of international cooperation and ADR; seek bilateral agreements to limit ASI/AASI conflicts. |
| Fragmented Policy Vision | Outcomes are case-driven; no coherent national SEP strategy. | Develop a comprehensive national SEP policy aligning industrial, innovation, and consumer-protection objectives and update it periodically. |
| SEP-Specific Licensing Architecture Missing | Patent law treats SEPs like ordinary patents; licensing protocols are absent. | Addressed through multiple recommendations: registry, FFDRC, procedural safeguards, and competition-law interface. |

4. RECOMMENDATIONS

[4.1] CORE POLICY RECOMMENDATIONS

The Committee's core policy recommendations represent the essential reforms necessary to create a conducive legal environment for SEP licensing in Tau Ceti's smartphone and mobile device sector. These recommendations are designed to facilitate industrial growth, technological innovation, and consumer welfare while enabling implementers (domestic and foreign; SMEs and MNCs) to secure licences on FRAND terms.

1. Mandate SEP Registration and Essentiality Assessment: Require all SEPs enforced in Tau Ceti to be registered in a public database with FRAND undertakings; implement independent essentiality checks by qualified technical experts to reduce over-declaration and information asymmetry.

2. Establish a FRAND Facilitation and Dispute Resolution Centre (FFDRC): Create a neutral body within the IP Office to issue negotiation guidelines, mediate disputes, provide essentiality opinions, assist SMEs through a dedicated Helpdesk, and publish anonymised

royalty rate ranges. The FFDRC should facilitate good-faith negotiations without imposing binding rates.

3. Clarify Concurrent Jurisdiction of Patent and Competition Authorities: Amend legislation to explicitly recognise FRAND commitments as enforceable and allow the competition authority to investigate SEP licensing conduct that may harm competition, while courts retain jurisdiction over infringement and validity. Implement coordination mechanisms to prevent conflicting orders.

4. Codify Procedural Safeguards for SEP Injunctions: Incorporate the *Huawei v. ZTE* negotiation protocol into domestic law.⁴⁴ SEP holders must make concrete FRAND offers and allow reasonable response time; implementers must demonstrate willingness to licence; courts must consider proportionality and public interest before granting injunctions and should rarely grant *ex parte* relief.

5. Modernise Section 3(k) for Technical Software Inventions: Clarify that computer-implemented inventions producing a technical effect are patentable, ensuring SEPs covering software are not unfairly invalidated while maintaining strict novelty and inventive-step standards to prevent trivial patents.

6. Provide Targeted SME Support and Encourage Patent Pooling: Offer legal and financial assistance to SMEs, establish safe-harbour rules for collective licence-negotiation groups, and incentivise patent pools through regulatory comfort and expedited processes to reduce royalty stacking and transaction costs.

7. Promote International Cooperation and ADR: Collaborate internationally to harmonise FRAND practices, curb ASI/AASI conflicts through bilateral understandings, and promote arbitration to resolve cross-border SEP disputes efficiently.

These core recommendations collectively aim to build a transparent, efficient, and balanced SEP regime that incentivises upstream innovation, protects the public interest, enables broad access to standardised technologies on reasonable terms, and supports Tau Ceti's domestic industry in becoming a global manufacturing leader while aspiring to greater participation in future standard-setting.

[4.2] GENERAL POLICY RECOMMENDATIONS

This section presents the Committee's detailed recommendations, addressing each identified gap while balancing the interests of SEP holders, implementers, SMEs, and consumers. Each recommendation includes a proposal, rationale, and assessment of potential trade-offs.

Recommendation 1: SEP Disclosure and Transparency Framework

Proposal: Enact a statutory requirement that any patentee seeking to enforce an SEP in Tau Ceti must register the patent in a central, publicly accessible SEP database maintained by the Patent Office. Registration must include: (a) identification of the patent and corresponding

⁴⁴ *Huawei Technologies Co Ltd v ZTE Corp*, Case C-170/13, ECLI:EU:C:2015:477, ECR I (CJEU, 16 July 2015).

standard; (b) proof of FRAND undertaking submitted to the relevant SSO; and (c) a declaration of essentiality. A randomly selected percentage of registered SEPs should undergo independent essentiality assessment by qualified technical experts. The database should be searchable by standard, product category, and technology domain.

Rationale: Transparency reduces information asymmetry and search costs. Public registries and essentiality checks are contemplated in the EU and UK and successfully used by patent pools such as Avanci. Without such measures, implementers cannot know which licences they need, and SEP holders may over-declare portfolios. Essentiality assessments will discourage frivolous declarations and improve confidence in licensing negotiations. Mandating FRAND declarations ensures only patents bound by FRAND commitments can be enforced as SEPs.

Trade-offs: SEP holders may argue that mandatory disclosure burdens them and exposes sensitive portfolio information. To mitigate, only essential technical details and FRAND undertakings should be published; royalty terms can remain confidential. Essentiality assessments should be non-binding and subject to administrative appeal to protect legitimate patent rights.

Recommendation 2: FRAND Facilitation and Dispute Resolution Centre (FFDRC)

Proposal: Establish a FRAND Facilitation and Dispute Resolution Centre (FFDRC) as a facilitative body within the IP Office. It would not issue binding orders, set rates, or replace courts. The FFDRC would: (a) publish negotiation guidelines drawing from *Huawei v. ZTE* and METI guidelines; (b) offer voluntary mediation staffed by technical experts; (c) conduct essentiality assessments functioning as expert evidence; (d) provide an SME Helpdesk; and (e) maintain anonymised royalty-range statistics.

Rationale: A neutral institutional mechanism lowers transaction costs, reduces information asymmetry, and promotes early settlement. Japan's Hantei system shows that non-binding technical opinions can resolve disputes without litigation. Learning from the IPAB's failure, the FFDRC would be deliberately non-adjudicatory, narrowly focused on SEP licensing, and limited to facilitative functions.⁴⁵ It would encourage negotiated outcomes, with courts referring parties before injunction hearings, limiting strategic hold-up and costly, protracted litigation.

Trade-offs: Participation must remain voluntary to preserve contractual freedom and avoid constitutional concerns. A phased approach will require time for credibility-building. Early industry distrust can be mitigated through balanced governance, while adequate initial funding is critical, as the IPAB's experience shows institutional neglect can undermine sound designs.

Recommendation 3: Clarifying Patent-Competition Law Interface

Proposal: Amend the Patents Act and Competition Act to explicitly recognise that: (a) FRAND commitments create enforceable obligations; (b) infringement suits and patent validity remain

⁴⁵ Ranjana Ferrao, "Taking Measures without Measurements: Abolition of Intellectual Property Rights Appellate Board" (2021) 61 *Indian Journal of International Law* 84, 84–102.

within the jurisdiction of specialised IP courts; (c) where an SEP owner's licensing conduct (such as excessive pricing, refusal to deal, or discriminatory terms) potentially affects competition, the competition authority may investigate; (d) courts and the competition authority must coordinate to avoid conflicting orders, and (e) private bilateral settlements do not automatically terminate CCI proceedings where broader competitive harm is alleged. An interim coordination protocol should be established pending legislative amendment, enabling IP courts to seek CCI advisory opinions on competition-related issues.

Rationale: The judicial exclusion of CCI jurisdiction has created a regulatory vacuum in SEP markets. Comparative practice recognises competition law's role in addressing hold-up and abusive licensing, with authorities such as Brazil's CADE and the European Commission actively scrutinising SEP conduct. Treating the Patents Act as a complete code ignores its inability to address market-wide harms like discriminatory pricing or coordinated hold-up. The problem is compounded when private settlements terminate *in rem* CCI proceedings, enabling evasion of scrutiny. Experience in the EU, South Korea, and the United States shows that competition oversight can coexist with patent law. Legislative reform should therefore clarify concurrent jurisdiction and permit continued CCI investigations where market-wide effects persist.

Trade-offs: SEP holders may fear regulatory overreach, but clear coordination rules, time-bound proceedings, and a commitment mechanism can mitigate duplication. Judicial training is essential. The Supreme Court's stay in *CCI v. Swapna Dey* signals openness to concurrent jurisdiction, which legislation can definitively clarify.⁴⁶

Recommendation 4: Procedural Safeguards in SEP Enforcement

Proposal: Incorporate in the Patents Act a requirement that before granting an interim or permanent injunction on an SEP, courts must verify that the SEP holder has: (a) notified the alleged infringer of the specific patent and standard; (b) made a written FRAND offer with reasonable terms; and (c) allowed the implementer a reasonable opportunity to respond. The implementer must demonstrate willingness by either accepting the offer, making a counter-offer, depositing security, or seeking mediation. *Ex parte* injunctions should require a showing of irreparable harm not compensable by damages, similar to the *eBay* test. Courts should consider proportionality, public interest, and availability of alternate remedies before granting injunctions.

Rationale: The CJEU's *Huawei v. ZTE* protocol has proven effective in balancing interests internationally. Mandatory negotiation steps reduce opportunistic hold-up and hold-out, ensuring injunctions are used only when necessary. The WTO's ruling against China's ASI practice underscores global concern over injunction abuse. Codifying these safeguards will guide courts, provide predictability, and align Tau Ceti with emerging global norms. The

⁴⁶ *Competition Commission of India v Swapna Dey* [2026] (Supreme Court of India, February 2026).

Committee does not hard-code the *Huawei v. ZTE* protocol; it codifies underlying principles as factors, with FFDRC guidance providing updatable procedural detail.

Trade-offs: SEP owners may worry that stringent requirements delay remedies against wilful infringers. Clear timelines and the ability to seek provisional royalties or security deposits can preserve patentee incentives while protecting implementers from hold-up.

Recommendation 5: Balanced Approach to Computer-Related Inventions

Proposal: Clarify Section 3(k) by statute or authoritative guidelines to allow patents for computer-implemented inventions that deliver a demonstrable technical effect (e.g., improved network efficiency, lower power use, enhanced data processing), while preserving strict novelty and inventive-step standards. Adopt guidance aligned with the European Patent Office and India's Ferid Allani. Train examiners to rigorously assess technical contribution. For SEPs, require a preliminary essentiality review confirming claims meet the technical-effect test and subject software-based SEPs to heightened scrutiny.

Rationale: The uncertainty has two harmful effects. It chills domestic software innovation by making patent protection unpredictable, and destabilises SEP enforcement when software SEPs risk invalidation after standard adoption. At the same time, Section 3(k) rightly guards against trivial software patents and rent-seeking in mandatory standards. The Committee therefore recommends a balanced approach: clearly defining the technical-effect test, maintaining high novelty thresholds, and requiring dual verification of essentiality and patentability for software SEPs.

Trade-offs: Clarifying Section 3(k) risks over- or under-inclusiveness. A phased, guideline-first approach allows iterative refinement. Dual assessment for software SEPs adds cost but is justified by asymmetric error risks, while FRAND commitments ensure access to valid software SEPs on reasonable terms.

Recommendation 6: Support for SMEs and Start-ups

Proposal: Create an SEP support scheme for SMEs providing: (a) an SEP Helpdesk within the FFDRC offering free legal and technical advice; (b) financial assistance or low-interest loans for initial licensing fees; (c) guidance on forming licence-negotiation groups under competition compliant safe-harbour rules; and (d) default royalty deferrals or scaled rates for start-ups in their first years of commercialisation. Encourage SEP holders to adopt tiered royalty structures reflecting sales volumes.

Rationale: SMEs lack bargaining power and resources to navigate SEP licensing. Without support, they may infringe unknowingly or avoid cutting-edge standards, undermining national industrial goals. Pooling resources and obtaining expert advice levels the playing field. Start-up grace periods encourage market entry while preserving future royalties for patentees. Such measures align with Japan's SME-friendly policies and the European Commission's recognition that bilateral SEP negotiations impose prohibitive costs on small firms.

Trade-offs: Subsidising licences could create moral hazard; eligibility conditions should ensure beneficiaries genuinely intend to commercialise standard-compliant products. Collective negotiation groups must operate under clear antitrust guidelines to prevent buyer-side collusion.

Recommendation 7: Patent Pools and Collective Licensing

Proposal: Facilitate and incentivise the formation of patent pools for major standards (4Y, 5Y) in which SEP holders collectively license patents at single, publicly announced rates. Pool approval conditions should include: open membership, independent essentiality evaluation, non-exclusive licences, and royalty rates reflecting aggregate reasonable return. Provide antitrust comfort letters to pools and implementer licence-negotiation groups meeting specified conditions. Encourage cross-licensing arrangements where domestic SEP holders emerge.

Rationale: Patent pools reduce royalty stacking and transaction costs by providing one-stop licences. Pools like Avanci have successfully licensed automotive SEPs, demonstrating market-driven solutions. For Tau Ceti's growing IoT and automotive sectors, pools can accelerate standard adoption. Publishing single rates increases transparency and reduces discriminatory pricing risks.

Trade-offs: Pool formation requires SEP holder coordination; some may prefer bilateral licences. Government incentives (expedited patent examinations, tax benefits for pool transactions) can encourage participation. Implementer groups must operate under antitrust oversight to prevent buyer cartelisation.

Recommendation 8: International Cooperation and ADR

Proposal: (a) Collaborate with other jurisdictions and international organisations to harmonise SEP governance; advocate for common FRAND principles at WIPO and through bilateral dialogues. (b) Engage in treaties or memoranda to respect foreign court orders and minimise ASI/AASI battles. (c) Encourage international arbitration for global SEP disputes with enforcement under the New York Convention. (d) Leverage Tau Ceti's position in regional forums to promote collective bargaining positions and knowledge-sharing.⁴⁷

Rationale: SEP disputes are inherently transnational. International cooperation can reduce forum shopping and conflicting injunctions. The WTO's condemnation of China's ASI practice highlights the need for global discipline. By advocating for shared norms, Tau Ceti can shape international standards while protecting domestic industries. International arbitration offers efficient resolution and enforceability across borders.

Trade-offs: International agreements take time and may require concessions. Nonetheless, participation in global dialogues positions Tau Ceti as a responsible player and offers long-term stability for domestic innovators and consumers.

⁴⁷ WIPO, 'Strategy on Standard Essential Patents 2024-2026'; WIPO Symposium on SEPs (September 2025).