

# IP FINANCE SOLUTIONS FOR BRAZIL



**General Coordination of Technology Contracts**

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# EXECUTIVE SUMMARY

This report presents a practical strategy to make intellectual property assets bankable in Brazil. The approach is guided by three structural bottlenecks:

- (i) heterogeneity of valuation methodologies;
- (ii) the absence of a secondary market capable of providing liquidity and price benchmarks; and
- (iii) informational opacity, which hinders due diligence and the enforcement of collateral.

The proposed response combines data standardization and annotations at the National Institute of Industrial Property (INPI), auditable valuation methods, minimum liquidity instruments, and governance arrangements that align incentives among those who create, regulate, finance, and use intellectual property.

**The lessons learned in 2024 inform the solutions developed in 2025. It was observed that intellectual property, like tangible and financial assets, reduces the cost of credit when supported by reliable measurement, adequate disclosure, and clear enforcement protocols. On this basis, the following priorities were established: informational standards (annotations, searches, and events), accounting integration and capacity building, harmonized valuation methodologies, a functional secondary market, and guidelines for financial instruments with risk-mitigation features.**

**Within the axis of annotations at the INPI, gaps were mapped and a new taxonomy was examined, with specific labels for IP finance (collateral, creditor release, unavailability, exclusive and non-exclusive agreements, and conditional assignment). In addition, the need for a dedicated public search mechanism (*BuscaWeb*) for annotations was reinforced, with minimum metadata to support auditing and due diligence.**

To enable this restructuring, guidelines were outlined for the fee schedule, aligned with the pricing policy of the Ministry of Development, Industry, Trade and Services (MDIC) (GM/MDIC Ordinance No. 256/2025): pricing based on cost and complexity, four-year review cycles, demand analysis, international benchmarking, and discounts for strategic audiences such as micro and small enterprises, universities, and scientific, technological, and innovation institutions. The objective is to ensure transparency, predictability, and tariff rationality, without hindering the adoption of new services.

# EXECUTIVE SUMMARY

In the liquidity and pricing pillar, we proposed a secondary market for intellectual property on a public platform (a national showcase), with disclosure of transaction values (licenses and assignments), filters by sector and technology, and interoperability with active showcases (universities and companies). As an analytical layer aimed at making information available for stakeholder analysis, the overview of technology contract information provides historical series by sector, modality, and origin of the parties, reduces information asymmetries, and helps calibrate liquidity and pricing parameters. Taken together, the national showcase tends to function as a “FIPE Table” for intangibles, anchoring expectations and supporting credit operations, enforcement, and securitization.

Recognizing the asymmetry between supply and demand, we structured an empirical survey with startups, innovative companies, and scientific, technological, and innovation institutions to map financing needs, perceived barriers, and willingness to use intellectual property as collateral. In parallel, we intensified the dissemination of IP finance among institutions such as the National Bank for Economic and Social Development, the Brazilian Intellectual Property Association, the Ministry of Development, Industry, Trade and Services, and the Commercial Association of Rio de Janeiro.

The proposed governance framework establishes clear and complementary roles: the National Institute of Industrial Property / General Coordination of Technology Contracts / General Coordination of Economics and Innovation (standards, data disclosure, and valuation), the Ministry of Development, Industry, Trade and Services (coordination and incentives), the financial system (credit criteria, collateral, and securitization), Technology Innovation Centers / scientific, technological, and innovation institutions (qualified origination<sup>[1]</sup>), and sectoral entities (capillarity and practical adherence). Continuous mechanisms — technical-executive committees, performance indicators (origination, analysis time, expected losses, enforcement, cost of capital, impact on research, development, and innovation), and audit trails — ensure decision-making predictability and course correction.

The expected impact is direct: greater transparency and comparability reduce asymmetries, shorten analysis timelines, improve risk pricing, and lower the cost of IP-backed credit. In sum, intellectual property ceases to be an opaque stock on balance sheets and becomes an integral part of the country’s financial infrastructure, with governance, data, and processes capable of scaling IP finance in Brazil.

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[1] Origination, in the context of IP finance, is the process that transforms an intellectual property asset into a financeable opportunity: it identifies the right (patent, trademark, software, etc.), cleans and validates the information (chain of title, status at the INPI, encumbrances, licenses, and litigation), demonstrates traction and demand (use, customers, contracts, metrics), produces a pre-valuation to benchmark limits and risk, and structures the transaction (collateral arrangements such as pledges or conditional assignments, covenants, monitoring, and enforcement pathways), consolidating a standardized data room for due diligence. When articulated by technology innovation centers and scientific, technological, and innovation institutions, companies, valuers, and financiers — supported by clear taxonomies, public searches of annotations, and sectoral references — origination reduces asymmetries, shortens timelines, improves risk pricing, and enables IP-backed credit.

# INTRODUCTION



This report portrays the evolution of the IP finance agenda in Brazil based on the lessons learned in 2024 and presents the institutional paths pursued in 2025. It starts from a clear diagnosis: the low acceptance of intellectual property assets as collateral results from the combination of heterogeneous valuation methods, the absence of a secondary market and low liquidity, which exacerbate information asymmetries in credit markets and increase the cost of capital. The proposed response involves informational standardization, signaling and screening mechanisms, and a governance arrangement capable of connecting origination, valuation, registration, financing, monitoring, and enforcement.

Based on this framework, the document is structured in three movements. First, it revisits the conclusions of the 2024 report (INPI, 2024), which outlined priority fronts: information standards at the INPI (annotations, searches, and events), accounting integration and professional capacity building, auditable valuation methodologies, the creation of a secondary market, and the design of a dedicated fund with risk mitigation. It then presents the second step taken in 2025, detailing the operational components of IP finance solutions for Brazil: demand qualification, the supply of IP-backed capital, standardized valuation, diversified annotation at the INPI, liquidity mechanisms and dispute resolution, as well as cross-cutting actions for dissemination and governance. Finally, it delves into enabling topics – reform of annotations and public search tools, learning from technology showcases, and proposals for an interoperable secondary market, including the use of the Technology Contracts Information Panorama as a basis to reduce asymmetries, support valuation, and integrate with the future annotation search in *BuscaWeb*.

**The focus is pragmatic: to transform intellectual property into a bankable asset through clear rules, comparable data, and auditable processes, reducing risk perception and creating price benchmarks.**

# LESSONS FROM THE 2024 REPORT: UNLOCKING IP FINANCE IN BRAZIL

Let us revisit the main conclusions of the report on IP finance presented in 2024, concerning the unlocking of intellectual property as a financial asset in Brazil, which served as the conceptual and practical basis for the evolution of IP finance solutions for the country.

The central diagnosis indicated that the low acceptance of IP assets as collateral stems primarily from the heterogeneity of valuation methodologies and the absence of a secondary market. These factors, combined with low liquidity, create an environment of high uncertainty. Such elements intensify a classic problem of information asymmetry in credit markets, which manifests itself in adverse selection and the transfer of risk into prices, increasing spreads and discouraging both lenders and borrowers with high-quality intangible assets. In light of economic theory, overcoming this impasse requires signaling and screening mechanisms that render information comparable, auditable, and verifiable.

From a regulatory and financial standpoint, it was emphasized that the Basel framework and CMN Resolution No. 4.966/2021 (aligned with IFRS 9/CPC 48) reinforce prudential discipline by requiring risk-based provisions and strict eligibility criteria for collateral. Within this framework, intangible assets rarely count toward regulatory capital due to difficulties in measurement and enforcement, which discourages their use as collateral. Evidence from the Central Bank of Brazil shows, however, that effective collateral substantially reduces the cost of credit; therefore, qualifying IP as collateral is a concrete path to lowering interest rates, provided that advances are made in measurement, liquidity, and legal certainty.

At the operational and legal level, specific obstacles were mapped: nonexistent or disparate valuation standards, execution risks (for example, trademarks essential to business activity), insufficient enforcement against unfair competition, and a shortage of professionals qualified to value intangibles. In response, the report proposed a set of measures with rapid implementation at the INPI, without the need for legal amendments: standardizing and expanding the transparency of annotations of encumbrances and limitations on IP rights; providing a public search by type of encumbrance, with minimum metadata (e.g., financing party, term, nature of the encumbrance), similar to the practice of the United States Patent and Trademark Office; and improving the disclosure of ownership-related events, thereby reducing informational asymmetries in origination.

In accounting and capacity building, it was recommended to recognize IP more broadly in financial statements, with reduced transaction costs (for example, substitute valuation models in specific cases), a consolidated asset certificate issued by the INPI for corporate use, and targeted training programs for accountants and lawyers through boards of trade and professional councils. Such measures expand the bankability of assets and create a more predictable pipeline for IP-backed operations.

In the valuation pillar, the report advocated the dissemination of applicable and auditable methodologies (cash flow models, real options, and AVMs—automated valuation models), the creation of a public registry of valuation firms, and international cooperation with jurisdictions that already operate IP finance (Japan, Korea, Canada, the United States, and the United Kingdom). The objective is to harmonize benchmarks and reduce variance among valuation reports, increasing reliability for lenders, securitization vehicles, and investors.

For liquidity and pricing, it proposed the creation of a secondary market for intellectual property on a public platform (a national showcase), with disclosure of transaction values (licensing and assignment) and filters by sector and technology, inspired by marketplaces and corporate showcases. Such an environment would function as a “FIPE Table” for intangibles, anchoring expectations and providing monetary benchmarks for credit operations, enforcement, and securitization.

Finally, the 2024 report outlined the design of a dedicated IP finance fund with tripartite governance: the Funding Authority for Studies and Projects (FINEP) (origination, technical evaluation, and management), the National Bank for Economic and Social Development (BNDES) (funding and indirect instruments), and the National Institute of Industrial Property / General Coordination of Technology Contracts (data quality, informational standardization, and information services). Partial risk coverage is envisaged through public insurance or guarantees, enforcement protocols with recourse to the secondary market in the event of default, and periodic performance reports, consolidating transparency and discipline. Technical missions (e.g., with the Business Development Bank of Canada, in Canada) and public tools (such as an “intangible valuation calculator”) complete the framework.



In summary, the report concluded that unlocking IP finance in Brazil depends on coordinated actions across five fronts: (i) information standards at the INPI (annotations, searches, and events); (ii) accounting integration and professional capacity building; (iii) harmonized and auditable valuation methodologies; (iv) a secondary market to provide liquidity and price benchmarks; and (v) a dedicated fund with clear governance and risk-mitigation instruments. This new report, focused on IP finance solutions for Brazil, builds on these foundations to detail institutional implementation and sectoral pilot projects, with an emphasis on scalability, governance, and impact metrics.

# 2025 REPORT: TAKING THE SECOND STEP

Based on the diagnosis and proposals developed in 2024, we structured IP finance solutions for Brazil as a logical sequence of stages, complemented by cross-cutting axes of dissemination and governance.

From a functional standpoint, the system requires:

- (i) qualified demand for financing from companies with relevant IP portfolios;
- (ii) the supply of capital through a fund backed by IP assets;
- (iii) technical valuation to define credit limits and risk parameters;
- (iv) legal annotation of the transaction on the IP right filed or registered with the INPI;
- (v) liquidity mechanisms, notably a secondary market for enforcement or disposal in events of default; and
- (vi) dispute resolution mechanisms, considering the possibility of judicialization.

Transversely, dissemination (engagement of actors in the IP and financial ecosystems) and governance (roles, decision-making flows, and metrics) are indispensable.

In 2025, the INPI concentrated efforts on the following IP finance fronts:

- Annotations at the INPI: a critical mapping of the state of the art and identification of gaps.
- Lessons from the “IP Showcase”: analysis of what did not work and the formulation of guidelines for an interoperable IP secondary market, capable of aggregating existing showcases in the country and publishing information useful for pricing and enforcement.
- Demand for financing: assessment of credit needs in universities, industries, and companies (especially SMEs), with emphasis on recurring use cases and operational bottlenecks.
- Dissemination: capacity-building and awareness-raising actions on IP as collateral among public and private actors (IP offices, accountants, banks, development agencies, and sectoral associations).

In parallel, with less emphasis within the Institute’s direct scope, progress continues on the axes of creating a dedicated public fund and updating issues related to the judicialization of IP rights (enforcement, collateral, priorities, and opposability).

Finally, one of the strategic axes — valuation of intangible assets — remains under development under the leadership of the CGEI. In the context of IP finance, this axis is important for methodological harmonization, reproducibility, and regulatory alignment, in order to support origination, risk management, and the eventual securitization of IP assets. However, as it falls under the remit of the CGEI, it is not addressed in this report.

# ANNOTATIONS AND THEIR RELEVANCE TO IP FINANCE IN BRAZIL

The consolidation of IP finance in Brazil depends to a large extent on the quality of information and the publicity of acts that affect intellectual property rights. In this context, annotations play a structuring role: they precisely define the types of legal relationships that encumber an asset (encumbrances, collateral, assignments, court decisions, licenses, and registry changes), reduce information asymmetries, facilitate due diligence, and support risk measurement by lenders and investors. Without a standardized, searchable, and comparable annotation system, intellectual property remains opaque as collateral, which restricts its use in credit operations, securitization, and secondary markets.

As a benchmark, the U.S. experience at the USPTO is adopted for three central reasons: (i) it operates within a mature economy with consolidated financing and collateral instruments; (ii) it is embedded in a democratic institutional environment with regulatory and jurisprudential predictability; and (iii) it provides accessible public information, with a taxonomy of conveyance types, clear rules (MPEP/37 CFR[2]), and search tools that ensure traceability of the chain of title and encumbrances. Comparison with the USPTO provides operational reference lines (what to record, how to label it, which metadata to require, and how to make it available) that guide the redesign of Brazilian annotations.

On this basis, this section presents, in sequence, (i) the current scenario at the INPI (section 3.1), highlighting gaps in standardization and transparency under the heading “limitations or encumbrances”; (ii) a synthesis of annotations at the USPTO (section 3.2), emphasizing categories and informational effects relevant to credit; and (iii) an analysis of applicability to Brazil (section 3.3), focusing on annotation types directly useful for IP finance (e.g., security interest, lien, release by secured party, court order, mortgage, among others). It then addresses (iv) proposals for improvements at the INPI (section 3.4), (v) related adjustments to the Fee Schedule — to be consolidated after stakeholder consultation and analysis (section 3.5) — and (vi) the creation of a specific search mechanism for annotations in *BuscaWeb* (section 3.6), ensuring unified access, standardized metadata, and broad publicity.

The objective at this stage is solely to map gaps and study a possible future taxonomy of annotations for the INPI — pragmatic, compatible with the national legal framework, and aligned with international standards of information and governance. This is not a regulatory proposal, but rather technical inputs under development that, if validated in the future, may guide potential adjustments. By clearly defining which annotations are made, labeling them consistently, and making them searchable, the INPI may enable the financial ecosystem to assess, price, and monitor IP-backed collateral — a necessary condition for scaling IP finance in the country.

[2] MPEP (Manual of Patent Examining Procedure): the USPTO’s patent examination guidelines. “37 CFR” (Title 37 of the Code of Federal Regulations): the federal regulation with normative force governing patents, trademarks, and the PCT at the USPTO.

### 3.1) CURRENT SCENARIO AT THE INPI

Today, at the INPI, annotations related to IP assets are concentrated under the heading “limitations or encumbrances,” without explicitly setting out the procedures and requirements for recording collateral in credit operations backed by IP rights with financial institutions. For example, for patents, the relevant dispatch code is 25.13. This mechanism is generic and lacks normative standardization: the request is submitted in free form, with an essentially formal review, without substantive examination by the Institute. As a rule, applicants are instructed to submit whatever documentation they deem relevant.

Currently, there is no dispatch code for recording limitations or encumbrances applicable to all types of IP assets. This framework, restricted to a few dispatches and services, proves insufficient to address the diversity of IP finance scenarios in Brazil. Accordingly, this report is limited to identifying operational gaps and compiling technical references for a possible evolution of dispatches at the INPI. This is a technical study, not a regulatory proposal: it maps alternatives for typification and labeling that increase predictability and transparency of records, taking international experiences as comparative references — including the USPTO’s practices in assignments and encumbrances — with due adaptation to the Brazilian legal framework and operational context.

### 3.2) ANNOTATIONS AT THE USPTO

The USPTO has accumulated extensive experience with annotations since approximately 1837 — experience that is valuable for Brazil, which is currently in a phase of improving such records. The National Archives and Records Administration (NARA) maintains the USPTO’s historical documents for the period from 1837 to 1957, containing annotations that are still consulted today. Documents from 1957 onward are administered directly by the USPTO, and from 1989 onward their details have been made available with the convenience of online access.

These guidelines and procedures are set out in the Manual of Patent Examining Procedure (MPEP), especially MPEP §301 – Ownership/Assignability of Patents and Applications, which defines ownership and the forms of assignment and licensing, and MPEP §301.01 – Accessibility of Assignment Records, which establishes public accessibility of assignment and encumbrance records. The latter also determines that assignment records from 1837 to 1957 be archived and made available at NARA, while the remaining records are kept at the USPTO (with online images) — (USPTO (a), 2024).

In the USPTO context, encumbrance is the umbrella term, and security interest is its subcategory related to securing an obligation. The Official Gazette<sup>[3]</sup> itself clarifies that “a security interest or security agreement has the nature of an encumbrance (subcategory lien), not an assignment,” that is, it does not transfer ownership (USPTO, 1992).

Within the patent ecosystem, the records most relevant for publicity and compliance are, above all, security interest, mortgage, and the related event release by secured party, in addition to the lien label itself — bearing in mind that not every lien recognized under U.S. law is registrable at the USPTO<sup>[4]</sup>.

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[3] The Official Gazette is the official periodical of the USPTO. It is equivalent to Brazil’s Industrial Property Gazette (*Revista da Propriedade Industrial – RPI*).

[4] The USPTO records these documents to provide public notice to third parties, in accordance with MPEP §313 (USPTO (a), 2015) and 37 CFR Part 3 (USPTO (a), 2025), and the Official Gazette reinforces that a security interest “is in the nature of a lien, not an assignment” (USPTO, 1992). The statutory anchor is 35 U.S.C. §261, which governs the recording of interests and their enforceability against a subsequent purchaser or mortgagee (Cornell University (a), 2025).

In audit practice, the definitions and specificities of the Uniform Commercial Code (UCC) and the types of encumbrances (liens) related to intellectual property assets in the context of compliance and legal certainty are reflected in the USPTO's public patent assignment search database, which allows filtering by conveyance type (for example, security interest, mortgage, lien, and release by secured party), thereby adding transparency to due diligence and to IP-backed credit operations (USPTO (b), 2025)[5].

## **3.3) ANALYSIS OF USPTO ANNOTATIONS AND THEIR APPLICABILITY TO IP FINANCE IN BRAZIL**

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### **3.3.1) SECURITY INTEREST – REAL SECURITY / COLLATERAL**

The USPTO recognizes and records security interests over patents and patent applications for the purpose of providing public notice to third parties; this is explicitly stated in MPEP §313 (USPTO (a), 2015) and also in the most recent Chapter 300 (USPTO (a), 2024). The USPTO's Official Gazette records the guidance that a security interest "is in the nature of a lien, not an assignment," that is, it does not transfer ownership but encumbers the industrial property intangible asset (USPTO, 1992). The regulatory basis for the recording and form of documents is found in 37 CFR Part 3 (USPTO (a), 2025), while the statutory anchor is 35 U.S.C. (The United States Code)[6] §261, which establishes the regime for recording interests and their enforceability against a subsequent purchaser or mortgagee (Cornell University (a), 2025).

In the U.S. credit ecosystem, the nature of a security interest derives from the UCC[7], which defines a security interest as an interest in personal property or fixtures[8] that secures performance of an obligation (Cornell University (b), 2025), and from the filing of a financing statement[9] in the appropriate jurisdiction (the subject of Article 9) (Cornell University (c), 2025). For audit and due diligence purposes, public annotations may be verified through the USPTO's patent assignment search, applying the conveyance type filter and searching for security interest (USPTO (b), 2025).

Therefore, the security interest (real collateral) is relevant to IP finance in Brazil.

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[5] The Uniform Commercial Code (UCC) – a state-level model law – defines, in Article 1, §1-201(b)(35), a security interest as an interest in personal property or fixtures that secures the performance of an obligation, and priority typically requires the filing of a UCC-1 financing statement (UCC – Article 9) in the appropriate state (Cornell University (b) and (c), 2025). Among statutory liens relevant to IP finance compliance, a tax lien is the government's legal claim on a taxpayer's property for unpaid taxes (IRS, 2025), while a mechanic's or construction lien is an encumbrance typical of real estate or construction works (labor and materials) – as a rule, neither relevant nor registrable for patents (IRS, 2025; Cornell University (d), 2025).

[6] The United States Code (formally, the Code of Laws of the United States of America) is the official codification of the general and permanent federal statutes of the United States. It contains 53 titles organized into numbered sections.

[7] Article 1, §1-201(b)(35).

[8] "Fixtures" (U.S. law): in common law systems, fixtures are items originally movable that, after physical and permanent attachment to real property, become legally part of the real estate. The classification typically observes three classic criteria: (i) degree of attachment (durable fixation), (ii) functional adaptation to the property, and (iii) intent of permanence. Typical examples include machinery bolted to a foundation, built-in HVAC systems, solar panels installed on rooftops, and metal flues for heaters. In Brazil, the closest notion is that of improvements or accessions to real property – that is, additions that become incorporated in a manner not easily reversible – although the terminology and legal effects are defined by the Civil Code under its own categories (e.g., necessary, useful, and voluptuary).

[9] UCC-1 financing statement.

### **3.3.2) ASSIGNMENT OF ASSIGNOR'S INTEREST – OR ASSIGNMENT OF RIGHT, TITLE, AND INTEREST (OF THE ASSIGNOR), OR SIMPLY ASSIGNMENT OF RIGHTS**

At the USPTO, assignment of assignor's interest is the conveyance type label that indicates the assignment instrument by which the assignor transfers to the assignee the right, title, and interest it holds in the identified application(s) or patent(s).

By regulatory definition, an assignment is “the transfer, by a party, of all or part of the right, title, and interest in a patent or patent application” (USPTO (a), 2025), and it must be in writing, as required by law (35 U.S.C. §261) (Cornell University (a), 2025). Chapter 300 of the MPEP details that an assignment transfers ownership (in whole or in proportion to the assignor's share) and distinguishes assignment from a license (which does not transfer title) (USPTO (a), 2024)[10].

In the public patent assignment search database, this conveyance type appears exactly as “assignment of assignor's interest” and can be located using the conveyance type filter (USPTO (b), 2025). In the context of IP finance, this annotation evidences an effective transfer of ownership (A → B) and should not be confused with encumbrances such as security interests or liens, which do not transfer title (USPTO (a), 2024; USPTO (a), 2015; USPTO, 1992).

At the INPI, a functional equivalent already exists through the dispatch for Transfer of Ownership.

### **3.3.3) LIEN – ENCUMBRANCE**

In U.S. law, a lien is a subcategory of encumbrance that expresses a creditor's claim against an asset to secure an obligation. In the patent context, the USPTO records documents that reflect such encumbrances in order to provide public notice, in accordance with MPEP §313 and 37 CFR Part 3 (USPTO (a), 2015; USPTO (a), 2025; USPTO (b), 2025).

The USPTO's Official Gazette is explicit: a security interest is in the nature of a lien, not an assignment—that is, it does not transfer ownership, but merely encumbers the asset (USPTO, 1992). For IP finance purposes, it is useful to distinguish consensual liens (e.g., security interests and mortgages) from statutory or judicial liens (e.g., tax liens imposed by the tax authority and judgments or attachments, analogous to seizure). It should be noted that not every lien recognized under the U.S. system is registrable at the USPTO, and that the statutory anchor of the patent interest recording regime is 35 U.S.C. §261 (USPTO (b), 2025; Cornell University (a), 2025). In Brazil, the recommendation is to adopt “lien = encumbrance” as the standard term; to use “pledge” only when the instrument or statute expressly refers to a pledge (a consensual security over movable property) or when dealing with judicial attachment. Mortgage is a distinct consensual security separate from a pledge; and, for reference to statutory liens, see tax liens (IRS) and mechanic's or construction liens (typical of real estate or construction works and, as a rule, neither relevant nor registrable for patents) (USPTO (a), 2024; IRS, 2025; Cornell University (d), 2025).

It can therefore be concluded that the concept of lien (as used by the USPTO) is appropriate for IP finance in Brazil.

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[10] The recording regime is administrative, under 37 CFR Part 3 (cover sheet requirements, fees, and recording effects), and serves the purpose of public notice; when the assignee intends to act in a proceeding, standing is established upon proof of ownership before the Office (USPTO (a), 2025; USPTO (a), 2015) — a point also addressed in Chapter 300 (e.g., §325) and in 37 CFR §3.73(c) (USPTO (a), 2024; USPTO (a), 2025).

### 3.3.4) COURT ORDER

At the USPTO, court order is the conveyance type used to record judicial orders or decisions that affect title to, or rights in, a patent application or patent (e.g., an order that determines or ratifies an assignment, a judicial sale, the appointment of a receiver or trustee, partition or succession, etc.). The basis for recording is that the USPTO records assignments and other documents that affect title (USPTO (a), 2025), and the MPEP clarifies that, in addition to assignments, the USPTO records other documents that impact ownership for purposes of public notice (USPTO (a), 2015). There is also specific guidance for the entry of court decisions into the patent file (MPEP §2207 – Entry of Court Decision in Patent File), in Chapter 2200 (USPTO (b), 2024).

The legal and procedural effect of recording is solely to provide public notice: the USPTO does not attest to the validity of, nor adjudicate the merits of, the recorded document (37 CFR §3.54), although it may determine who has authority to act in proceedings before the IP office (USPTO (a), 2025). If a court order changes ownership, the new owner must establish standing to act before the USPTO in accordance with the rules on representation and entitlement (addressed in Chapter 300) and, where applicable, record the document with a cover sheet, pursuant to 37 CFR Part 3 (USPTO (a), 2015; USPTO (a), 2025)[11].

The USPTO's court order dispatch type is also appropriate for IP finance in Brazil.

### 3.3.5) RELEASE BY SECURED PARTY

At the USPTO, release by secured party is the annotation used to record the release or discharge of an encumbrance previously recorded against a patent application or patent – typically a security interest or a mortgage – with the purpose of providing public notice that the secured party of record has released the asset(s) affected by the encumbrance (USPTO (a), 2015; USPTO (a), 2025). This record is filed as an “other document affecting title” under 37 CFR Part 3, by means of a cover sheet containing the required elements; its effect is solely to provide public notice (the USPTO does not attest to the validity of the document: §3.54), but it clears the chain of title vis-à-vis third parties by indicating that the encumbrance has been extinguished (USPTO (a), 2025; USPTO (a), 2015).

This logic is consistent with the classic guidance of the Official Gazette: a security interest “is in the nature of a lien, not an assignment” – therefore, the release does not transfer ownership, but merely removes the encumbrance (USPTO, 1992)[12].

In the context of IP finance, the release recorded at the USPTO is necessary for the IP showcase, but it does not replace the release required under the UCC framework.

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[11] To locate cases, use the patent assignment search, filtering by conveyance type → court order (USPTO (b), 2025). In the context of IP finance, when a court order is identified, it is recommended to:

- (i) read the judicial order to verify whether it transfers title, imposes an encumbrance, or appoints an administrator;
- (ii) check subsequent entries (e.g., release, corrective assignment);
- (iii) cross-check with the chain of title, the standing of the agent or assignee, and note that the statutory anchor of the interest recording regime remains 35 U.S.C. §261 (Cornell University (a), 2025).

[12] In practice, MPEP Chapter 300 brings together the requirements and recording practice (including identification, in the cover sheet, of the reel/frame of the encumbrance being released), and public verification is carried out through the patent assignment search by filtering conveyance type → release by secured party to verify the date, scope (total or partial), affected assets, and parties (USPTO (a), 2024; USPTO (b), 2025).

### 3.3.6) CONDITIONAL ASSIGNMENT

At the USPTO, a conditional assignment is an assignment subject to a condition (e.g., payment or the occurrence of a future event). For recording purposes and from the USPTO's perspective, a conditional assignment is treated as an absolute assignment: the record is entered into the chain of title, and the assignee is listed as the owner until the assignment is cancelled by a written agreement of all parties or by court order. The USPTO does not verify the fulfillment of the condition — the function of recording is to provide public notice (USPTO (a), 2025; USPTO (a), 2015). In other words, a conditional assignment transfers “right, title, and interest” to the assignee within the USPTO framework, subject to formal reversion if the condition is not met (USPTO (a), 2025; USPTO (a), 2024). This should not be confused with a security interest: the USPTO's Official Gazette has established that a security interest is in the nature of a lien (an encumbrance), not an assignment; therefore, if the instrument does not transfer right, title, and interest, it constitutes collateral, not a conditional assignment (USPTO, 1992).

Chapter 300 of the MPEP summarizes that recording is administrative in nature (for public notice) and that the cover sheet must indicate the nature of the transaction (conditional assignment) and identify the parties and the assets<sup>[13]</sup>.

Note for IP finance: if a conditional assignment is part of a credit structure, it is essential to confirm whether there is an effective transfer (assignment) or whether the instrument constitutes collateral. While the conditional assignment remains on record at the USPTO, the assignee appears as the owner with standing to act before the USPTO (USPTO (a), 2015; USPTO (a), 2024; USPTO (a), 2025).

In the Brazilian context, the absence, within the INPI, of a specific dispatch for “conditional assignment” does not, in itself, prevent adoption of the institute. By definition, a conditional assignment operates the transfer of ownership prior to the granting of credit, subjecting it to a resolutive condition (e.g., repayment of the debt). This reduces the lender's risk, since the asset already appears, from origination, in the chain of title of the assignee-financier, reverting to the assignor only if the condition is fulfilled. It therefore differs from collateral (real security or encumbrance): in collateral arrangements, even where an annotation exists, enforcement may be judicially contested by the debtor, creating room for reversals. In a conditional assignment, in principle, such reversal does not arise in the same way, because title has already been transferred subject to a resolutive condition.

From a legal standpoint, the Brazilian Civil Code allows conditional transactions (Articles 121, 122, 127, and 130), provided that the condition does not contravene the law, public order, or good morals. The Industrial Property Law, in turn, regulates the assignment of patents (Articles 58 to 60) and trademarks (Articles 134–138), but does not prohibit conditional assignments — it simply does not currently provide for their registration as a specific category. In other words, the obstacle is registral or operational, not necessarily one of substantive permissibility.

### 3.3.7) MERGER

At the USPTO, a merger corresponds, in practice, to the transfer of ownership when the change results from a merger or acquisition. In Brazil, the transfer of ownership is a multi-cause ruling.

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[13] 37 CFR Part 3 governs what may be recorded, the content of the cover sheet, and the effect of recording (public notice, without validation of the merits) (USPTO (a), 2024; USPTO (a), 2025; USPTO (a), 2015). To locate records in the patent assignment search, use the conveyance type filter → conditional assignment to view dates, parties, numbers, and open the document (reel/frame). In due diligence, check subsequent entries — e.g., cancellation (agreement of the parties), a court order reversing the assignment, or a corrective assignment (USPTO (b), 2025; USPTO, 2016; USPTO (a), 2015).

### **3.3.8) LICENSE**

It is merely the right of use or exploitation granted by contract, without any transfer of ownership. However, according to the information available on the INPI website under “Codes and Abbreviations” (INPI, 2025), where electronic files containing the codes for contract-related dispatches may be downloaded, only code 998 – compulsory license – is currently listed. Accordingly, with a view to improving the information available on contracts, it is suggested that new dispatch codes for contracts be considered.

### **3.3.9) CHANGE OF NAME**

Within the INPI, dispatches for change of name – for example, 25.4/25.5/25.6 for patents – correspond, at the USPTO, to the conveyance type change of name, which is used to record and provide public notice of a change in the name of the owner (a legal entity that has changed its corporate name, resulted from a merger with a name change, or undergone a corporate conversion). This is a non-transfer event: ownership remains with the same legal person, with only the name being updated in the records. The record is classified as a “document affecting title or interest” and follows the procedure under 37 CFR Part 3 – that is, submission of a cover sheet with the required elements, accompanied by supporting documentation – producing effects solely for purposes of public notice, without validation of the merits (USPTO (a), 2015; USPTO (a), 2025).

As set out above, the USPTO’s change of name dispatch already has a functional equivalent in the dispatches currently in force at the INPI, such that Brazilian practice fulfills the same purpose of updating registry information and providing public notice of a change in the owner’s name.

### **3.3.10) MORTGAGE**

At the USPTO, mortgage is a conveyance type used to record an encumbrance over IP assets – that is, a security instrument. Although, in U.S. legal jargon, mortgage traditionally refers to real property, for movable property and IP the modern practice treats it as a type of security interest. In USPTO practice, a mortgage may follow two paths:

i) The common approach – mortgage as a security interest/lien label: it does not transfer ownership; recording at the USPTO has the sole effect of providing public notice as a “document affecting an interest” (e.g., a security agreement, collateral). MPEP §313 lists these typical documents (“agreements granting a security interest”), and 37 CFR §3.54 makes it clear that the USPTO does not rule on the validity or effects of the instrument. Functionally, it is equivalent to a security interest (real collateral) and aligns with the recommendations of this report for collateral structures.

ii) The exceptional approach – assignment intended as security / conditional assignment: the creditor may appear as the owner in the USPTO records until the debt is discharged or cancelled, because conditional assignments, once recorded, are treated as absolute for registry purposes until cancelled by the written consent of all parties or by court order (37 CFR §3.56). The USPTO itself summarizes this by stating that if a patent is “mortgaged,” ownership passes to the lender until satisfaction of the mortgage and retransfer to the borrower. This arrangement may create governance frictions (who may petition, license, or pay fees) and requires careful management of powers before the USPTO.

Within the INPI framework, it appears simpler to treat mortgage in line with the use of an industrial property asset as collateral (as discussed in the section on security interest – real collateral), limiting the annotation to the fact that the asset is pledged as collateral, without any transfer of ownership. From this perspective, mortgage may, in principle, be treated as analogous to the use of an IP asset as collateral; for the time being, only this conceptual equivalence is noted, with a recommendation for future assessment as to whether it should be expressly addressed in normative texts and operational manuals, if relevant.

### **3.3.11) NUNC PRO TUNC ASSIGNMENT – RETROACTIVE ASSIGNMENT**

Nunc pro tunc is a Latin legal expression meaning “now for then” and designates an act or order—generally judicial – with retroactive effect. At the USPTO, a nunc pro tunc assignment refers to an assignment of rights executed in the present but with retroactive effect, typically used to remedy gaps in the chain of title; it is accepted in the assignment center, with a specific field for the effective date (USPTO (d), 2024). Recording has a purely public-notice character within the USPTO (it does not validate the merits of the instrument) (USPTO (b), 2015). It has no direct relevance to IP finance in Brazil.

### **3.3.12) MERGER AND CHANGE OF NAME**

At the USPTO, merger and change of name is merely the combination of two acts already addressed in this report: (i) merger – which alters ownership by succession or merger (equivalent to a transfer of ownership at the INPI); and (ii) change of name – which updates the name of the same owner (without changing the legal person). When the same corporate instrument encompasses both a merger and a name change, the USPTO may record both in a single recordation under this label; if they are distinct acts (or have different effective dates), best practice is to make two separate filings (merger and change of name). Accordingly, this combination is redundant in the context of IP finance in Brazil, since its effects are fully covered by the equivalent acts already provided for.

## **3.4) PROPOSALS FOR IMPROVEMENTS AT THE INPI**

After analyzing annotations related to guarantees, gaps in categorization and opportunities for standardization of formats and metadata are identified, with direct effects on publicity, comparability, and the usefulness of information in IP-backed operations. This report is limited to presenting technical findings and a conceptual direction for improving annotations and their public consultation (preferably via *BuscaWeb*), emphasizing standardization, traceability, and transparency, without presenting a normative proposal or implementation.

### **3.5) NEW FEE SCHEDULE**

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This report presents, on a technical basis, reference guidelines for a potential update to the Fee Schedule for Services Provided by the INPI, describing the applicable regulatory framework (MDIC Ordinance No. 39/2014, ME Ordinance No. 516/2019, and INPI Resolution No. 251/2019) and the Pricing Policy established by GM/MDIC Ordinance No. 256/2025, which defines principles, guidelines, and the methodology for pricing and periodic review. Under this model, price formation is predominantly cost-based, taking into account the complexity and execution time of services, with demand analyses, international comparisons, and discounts for strategic audiences (micro and small enterprises, universities, and scientific, technological, and innovation institutions), as well as a four-year review cycle aligned with MDIC guidelines and industrial and technological development policies (ENPI and Nova Indústria Brasil), in harmony with the INPI's strategic planning cycle. The references compiled herein aim to ensure transparency, predictability, and tariff rationality, without presenting a normative proposal or an implementation timeline.

### **3.6) SEARCH MECHANISM FOR THE NEW ANNOTATIONS IN BUSCAWEB**

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Transparency in the search of annotations is a structuring element for the viability of IP finance in Brazil. The USPTO serves as a reference by maintaining a dedicated environment for searching assignments and encumbrances, with publicity, standardization, and traceability suitable for audit purposes. In the Brazilian case, the issue involves, on the one hand, the conceptual and taxonomic improvement of annotations and, on the other, the provision of a public, user-friendly, and filterable consultation mechanism aimed at development agencies, financial institutions, companies, law firms, and academia. Integrating this mechanism into the INPI's general search tools — particularly *BuscaWeb* — fosters unified access, standardized metadata, and broad public notice of acts, conditions that enhance the production of statistics, improve institutional decision-making, and expand the usefulness of information for risk and compliance analyses.



#### 4.1.1) SHOWCASE – INOVA UFRJ

In 2007, UFRJ (the Federal University of Rio de Janeiro) established the UFRJ Innovation Agency as its Technology Innovation Center. In 2022, the structure was reorganized and renamed Inova UFRJ, consolidating its role as the body responsible for intellectual property management, dissemination of innovation culture, and the articulation of partnerships with the productive sector, with the aim of converting knowledge generated at the university into tangible benefits for society, such as licensing, partnership agreements, and research, development, and innovation projects (Inova UFRJ (a)).

Within the scope of technology transfer, Inova UFRJ operates through licensing and cooperation agreements that draw on the asset portfolio presented in the Technology Showcase. The logic is clear: to protect and manage intellectual property assets and subsequently license them for integration into the productive sector, enabling their materialization into processes, products, and services.

The Technology Showcase brings together UFRJ's protected assets – patent applications and patents, trademarks, industrial designs, and software registrations – and currently displays 46 assets (Inova UFRJ (b)). However, there is an absence of categorization by type (for example, explicit differentiation among patents, trademarks, designs, and software) in the public listing, which represents an opportunity for improvement in terms of taxonomy and usability for users and potential licensees. The showcase serves as the entry point to the technology transfer website, integrating the institution's strategy to bring academia and the market closer together through standardized instruments for the management and dissemination of intellectual property.

**Figure 1: INOVA UFRJ Technology Showcase**



Source: Inova UFRJ (b)

In the Technology Showcase, asset navigation is structured through thematic “Category” filters, such as: Food and agribusiness, Crop protection products, Veterinary products, Chemistry/Biochemistry, Energy and sustainable resources, Renewable sources, Petrochemicals, Environmental solutions, Pharmacology, Imaging agents, Cosmetics, Pharmaceuticals and compounds, Forensic chemistry, Materials, Infrastructure and logistics, Electrical engineering, Mechanical engineering, Materials and processes, Transportation, Biomedical systems and devices, and Medical devices. There are also filters by tags that qualify attributes and maturity stages, including: Agility, High efficiency, Productivity increase, Low environmental impact, Biodegradable, Biotechnology, Ease of application/use, Licensed, Partnership with external company, Cost reduction, Sustainability, Use of waste, Added value, and Versatility. However, the absence of a filter by type of IP asset (e.g., patent, trademark, industrial design, and software) is noted, which limits analyses oriented toward the legal nature of the right.

Each technology is presented with a standardized set of information: registration code, categories, tags, an explanatory summary, the problem addressed, the proposed solution, benefits, technological differentiator, and target audience. In addition, a PDF document is provided with further details and identification of the inventor(s). Below, a copy of the presentation format used in the Technology Showcase is included.

**Figure 2: Example of a Patent Offered in the INOVA UFRJ Showcase**

**Fechadura para portas de passagem acionada pelos pés**

"Fechadura para portas de passagem acionada pelos pés". Com o crescimento das grandes aglomerações urbanas, o convívio com pessoas desconhecidas no cotidiano se tornou algo inevitável, e o contato com objetos de uso comum – como maçanetas de fechadura – principalmente em locais com grande fluxo de pessoas se tornou um risco para a saúde. O presente projeto tem a função inovadora de atuar como uma fechadura para portas de passagem acionada pelos pés, evitando desta maneira o contato das mãos com uma maçaneta ou com um puxador infectado. Desta maneira, o produto desenvolvido não oferece riscos de contaminação por contato direto ao usuário. O produto também permite que pessoas portadoras de deficiência nos membros superiores possam realizar a abertura de portas mesmo que suas mãos e braços estejam comprometidos. Além das referidas funções, o produto foi desenvolvido como uma alternativa ao uso das mãos para abrir portas, permitindo que as mãos sejam abertas mesmo quando se está com as mãos ocupadas. Como exemplos de situação, uma pessoa transportando uma caixa de grande volume ou carregando uma criança de colo. O produto desenvolvido também possui outra característica importante. Por se tratar de um objeto direcionado ao uso com os pés, a fechadura desenvolvida deve ser instalada na parte inferior de portas de passagem. Ela é passível de funcionar de modo independente, por possuir mecanismo de trava e de trinco próprios, ou de modo associado a uma fechadura convencional de acionamento manual, através da interligação dos seus mecanismos, permitindo que ambas as fechaduras sejam acionadas pelo acionamento de apenas uma delas (caso ambas as fechaduras estejam instaladas em uma porta de passagem).

**Problemática:** Necessidade higiênica de evitar o contato das mãos com portas; Dificuldade de pessoas deficientes em manusear portas.

**Solução proposta:** Dispositivo de fechadura para portas acionado pelos pés.

**Benefícios:** Pode ser instalada como fechadura única ou em combinação com fechaduras tradicionais.

**Diferencial da tecnologia:** Uso dos pés para manuseio das portas.

**Público-alvo:** Público em geral, principalmente administradores de locais com grande circulação de pessoas ou usuários interessados em praticidade na residência, pessoas com mobilidade reduzida e/ou deficiências que dificultem o uso de maçanetas.

Source: Inova UFRJ (c)

The technology transfer process takes place through sequential and interdependent stages: it begins with the identification of technologies with application potential, followed by the execution of a confidentiality agreement, a structured presentation of the solutions to the interested party, and an analysis of technical feasibility. Once these phases are completed, the asset is valued, the commercial and legal terms are negotiated, and, finally, the contract is signed. Upon completion of this process, the technology is licensed to the company, which then holds the rights of use under the agreed terms, as illustrated in Figure 3.

**Figure 3: Technology Transfer Scheme at INOVA UFRJ**



Source: Inova UFRJ (d)

#### 4.1.2) SHOWCASE – INOVA UNICAMP

Inova Unicamp was created in 2003, even before the Innovation Law (Law No. 10,973/2004), with the mission of structuring, within the university, the management of intellectual property, technology transfer, research partnerships, technological entrepreneurship, business incubation, and the promotion of innovation both on and off campus (Inova Unicamp (a)).

In 2012, the Technology Showcase was launched on the Inova portal, designed to give visibility to innovations developed at Unicamp. After the filing of a patent with the INPI, Inova’s analysts, together with the responsible researcher, prepared a technology profile highlighting its differentiators, market potential, and commercialization opportunities; this profile was then published, enabling access by companies interested in its development.

In 2024, the Technology Showcase was redesigned and renamed the “Technology Portfolio,” with the aim of expanding the visibility and usability of the innovation collection. The new Portfolio was integrated with the “Competency Portfolio” (launched in 2023), connecting companies with researchers whose expertise matches their demands and offering a more intuitive interface. The scope of assets was also expanded to include cultivars and industrial designs, in addition to patents and software. Among the improvements, new filters by macro areas (for example, Agro 4.0, Biotechnology, 5G, and Low Carbon) and by the United Nations Sustainable Development Goals (SDGs) stand out, facilitating the discovery of technologies aligned with strategic themes and reinforcing the portfolio’s alignment with innovation and sustainability agendas (Inova Unicamp (b)).

According to Inova Unicamp's Annual Report, in 2024 the university maintained 233 active technology transfer agreements, resulting from the formalization of 32 new agreements during the year. This volume represents a 9.9% increase in the stock of active contracts compared to 2023, signaling the continued expansion of university – industry partnerships and the practical application of knowledge generated at the institution (Inova Unicamp (c)).

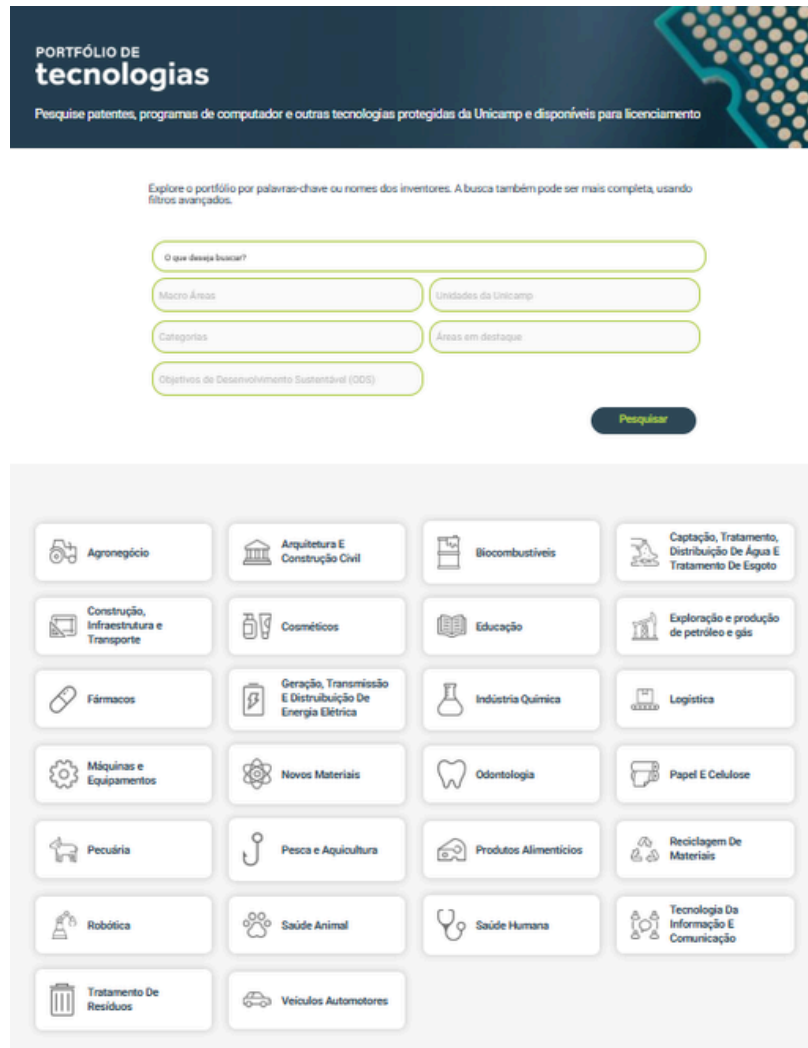
Licensing cases are presented on the website by year, with identification of the licensed companies. Each record includes the patent number and the nature of the license (exclusive or non-exclusive), as well as a summary of the technology, ownership information, the responsible Unicamp unit, inventors, the licensed company, and an indication of the Sustainable Development Goal to which the solution is related, highlighting the public or sectoral problem the technology seeks to address (Inova Unicamp (d)).

Inova manages 1,354 active patents, both domestic and international. In 2024, 78 patent applications were filed in Brazil, representing an increase of 52.9% compared to the previous year. In addition to patents, as of 2024 the managed portfolio includes 386 software registrations and 159 registered trademarks (Inova Unicamp (e)).

The search for intellectual property assets can be carried out through the Technology Portfolio, which offers multiple filters and a direct contact channel ("Contact Inova about a technology"). The filters include: (i) free-text search, allowing queries by keywords or inventor names; (ii) macro areas, such as Agribusiness; Architecture and Civil Construction; Biofuels; Water Capture, Treatment and Distribution and Wastewater Treatment; Construction, Infrastructure and Transportation; Cosmetics; Education; Oil and Gas Exploration and Production; Pharmaceuticals; Electric Power Generation, Transmission and Distribution; Chemical Industry; Logistics; Machinery and Equipment; New Materials; Dentistry; Pulp and Paper; Livestock; Fisheries and Aquaculture; Food Products; Materials Recycling; Robotics; Animal Health; Human Health; Information and Communication Technology; Waste Treatment; and Motor Vehicles; (iii) university units, such as the Center for Molecular Biology and Genetic Engineering and the Center for Semiconductor Components and Nanotechnologies; (iv) asset categories (Industrial Designs, Patents, and Computer Programs); and (v) featured areas, such as Agro 4.0, Green Technologies, Connectivity, COVID, Neglected Diseases, Assistive Technologies, IoT, Low Carbon and Natural Resources, Industry 4.0, Biotechnology, Energy, and Additive Manufacturing.

This filter structure increases search precision, facilitates the identification of licensing opportunities, and brings companies and researchers closer around strategic themes. The figure below illustrates the search platform of the INOVA UNICAMP showcase.

**Figure 4: Search Mechanism in the INOVA UNICAMP Showcase**



Source: Inova Unicamp (f)

Patents are presented with a standardized set of fields: inventors, title, abstract, potential applications, problem addressed, advantages, application status (filed or granted), and linkage to the relevant Sustainable Development Goals. This informational structure facilitates understanding of the technological scope and expected impact, while also supporting prospecting and decision-making by potential licensees, as illustrated in Figure 5.

**Figure 5: Example of Technology Available at INOVA UNICAMP**

## Produção de extrato hidrossolúvel de soja com maior valor nutricional e redução na geração de resíduos

Tecnologia de otimização de processamento de leguminosas obtém um extrato hidrossolúvel de soja com maior valor nutricional e menos geração de resíduos

Um extrato hidrossolúvel e enriquecido de soja com qualidades nutritivas modificadas foi o resultado de um processo desenvolvido na Unicamp por pesquisadores da Faculdade de Engenharia de Alimentos. A tecnologia visa otimizar o processamento e o pré-tratamento de leguminosas como a soja, obtendo um produto com grande quantidade de isoflavonas agliconas e proteínas, além de reduzir em 85% a quantidade de resíduos (okara) produzidos após a filtração.

O processo baseia-se no aumento da quantidade de extrato de soja causado pela aplicação de um complexo multi-enzimático nas fibras insolúveis da soja, bem como no aumento da recuperação de proteínas e isoflavonas, que geralmente são perdidos no resíduo gerado pelo processamento. Algumas soluções aplicam o okara na alimentação animal ou em ingredientes de produtos como bebidas, cookies e hambúrgueres, mas apesar de ser comestível e rico em nutrientes, o okara tem baixo valor comercial devido à sua difícil manipulação e altas umidade e carga microbiológica, o que causa uma rápida deterioração e necessidade de ser prontamente refrigerado. Além disso, essas soluções não implicam no aperfeiçoamento do processo de extração da soja. A presente invenção, por sua vez, melhora a capacidade extrativa de compostos bioativos de matrizes vegetais, especialmente de soja, aumentando o rendimento e o valor nutricional do extrato obtido.

### PRINCIPAIS BENEFÍCIOS E CARACTERÍSTICAS DA INVENÇÃO

Otimiza o processamento e o pré-tratamento

Redução dos resíduos gerados

Extrato com alto valor nutricional

### DETALHES

TÍTULO: Produção de extrato hidrossolúvel de soja com maior valor nutricional e redução na geração de resíduos

STATUS: DEPOSITADO  
CÓDIGO: 1619\_CARBOIDRASES

Esta tecnologia foi desenvolvida em parceria com a FAPESP

### INVENTORES

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- Graduação em Engenharia de Alimentos pela Unicamp (2002)
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Camila Benedetti Penha

Faculdade de Engenharia de Alimentos – Unicamp

### FACULDADE/INSTITUTO:

Faculdade de Engenharia de Alimentos (FEA)

Source: Inova Unicamp (g)

### 4.1.3) PETROBRAS SHOWCASE – OPEN INNOVATION PROGRAM

Petrobras has structured an Open Innovation Program to expand its integration with the science, technology, and innovation ecosystem, strengthening strategic partnerships and accelerating the development of technological solutions. The program brings together science and technology institutions, universities, startups, companies from various sectors, and researchers with an entrepreneurial profile, creating an environment conducive to mapping priority technological challenges, submitting proposals, technically evaluating solutions, and co-developing technologies. The initiative combines access to expert knowledge, laboratory infrastructure, and the company's experimental facilities, fostering proof-of-concept activities, pilot projects, and industrial scaling, with a view to technology transfer, licensing, and the incorporation of innovative solutions into operations.

The Open Innovation Program is structured into the following modules: Solution Acquisition, Technological Cooperation, Technological Procurement, Open Lab, Petrobras Innovation Ventures, Residents, Startups, and Technology Transfer, as shown in the figure below.

**Figure 6: Structure of the Open Innovation Program**



Source: Petrobras Innovation, 2025

Petrobras makes available, through its Technology Transfer module, a structured portfolio of 213 patents with licensing potential. This initiative is part of the company's open innovation strategy, expanding interaction with the science, technology, and innovation ecosystem and accelerating the diffusion of technological solutions.

The central objective is to enable access to technologies developed by Petrobras, both for external partners and for internal use, in order to accelerate the creation and implementation of new products, equipment, and processes. By transforming technical knowledge into concrete business opportunities, the company contributes to strengthening the productive sector and advancing the country's technological development.

The module brings together 21 technology transfer opportunities, transparently presenting patent titles and their associated solutions. This public offering model provides greater visibility, predictability, and competitiveness to the licensing process, facilitating evaluation by potential stakeholders.

The target audience includes companies, universities, science and technology institutes, and other organizations within the innovation ecosystem, which may commercially exploit the technologies, apply them to optimize internal operations, or drive new R&D initiatives. Key benefits include access to cutting-edge technologies and know-how, opportunities for commercial exploitation, direct application in internal processes, and support for licensees through training and technical assistance.

### **ONE-CLICK LICENSING:**

Petrobras makes available 213 technologies for licensing, through a simple and streamlined process designed to encourage the adoption of innovations and strengthen suppliers capable of applying these solutions in their businesses. The opportunities span the areas of Exploration and Production, Production Development, Refining, and Sustainability. The platform provides a range of strategic information to facilitate the negotiation of intellectual property assets, enabling potential partners to quickly understand the technological stage, licensing conditions, and application opportunities.

Example: Patent BR102016015522-3

Title: “ENZYMATIC PROCESS FOR THE DEPOLYMERIZATION OF POST-CONSUMER POLY(ETHYLENE TEREPHTHALATE) VIA GLYCOLYSIS REACTION, PROCESS FOR THE RECYCLING OF POST-CONSUMER POLY(ETHYLENE TEREPHTHALATE), AND RECYCLED POLY(ETHYLENE TEREPHTHALATE)”

The present invention relates to an enzymatic process for the depolymerization of post-consumer poly (ethylene terephthalate) via a glycolysis reaction. This invention also refers to a process for recycling post-consumer poly (ethylene terephthalate) and to the recycled poly (ethylene terephthalate) obtained through said process. The licensing conditions for this asset include a royalty rate of 5%, with a term of validity from 08/09/2021 to 01/07/2036. The licensing term of the asset is five years, renewable for an equal period, up to the end of the term of validity of the intellectual asset, and the payment conditions are quarterly, based on data obtained from the requested invoices.

It is important to note that this patent, BR102016015522-3, has also been offered for licensing at the INPI (on the dates 13/09/2022, 21/03/2023, 08/08/2023, 06/02/2024, 03/09/2024, and 01/04/2025).

## 4.2) THE IP SHOWCASE EXPERIENCE AND ITS LESSONS

The IP Showcase was conceived as an online space to give visibility to intellectual property assets – especially patents – and to bring together holders and potential parties interested in licensing, co-producing, or investing. In practical terms, it was an informational marketplace: through standardized listings, technologies would be displayed with descriptions, keywords, and contact details, with the aim of reducing information asymmetry and accelerating technology transfer discussions.

The objective was twofold. On the one hand, it sought to stimulate the liquidity of these assets by making it easier to discover who owns what, at what stage, and for which applications. On the other, it aimed to create market signals that could support pricing and the prioritization of efforts – important preconditions for any IP finance agenda.

In practice, however, the platform failed to gain traction. Listings remained few and lacked dynamism; robust filters and taxonomies were missing (by asset type, maturity, sector, or region); and the user experience lacked effective search, comparability, and update features. There were also technical limitations and gaps in ongoing maintenance, which discouraged new registrations and user retention. Insufficient dissemination and the absence of organic integration with existing databases (to leverage already available data) and with key ecosystem actors (universities, technology innovation centers, development agencies, and companies) further compounded the problem. Without an iterative improvement cycle and without clear metrics of adoption and success, the initiative lost momentum before delivering consistent results.

From a learning perspective, this experience provides clear lessons for future solutions oriented toward IP finance:

- 1 **It is essential to launch with a minimum viable product and a clear evolution roadmap (advanced search, minimum metadata, integration with official databases and annotations, and performance indicators);**
- 2 **Governance must be simple and predictable—who publishes, who validates, who maintains, and how success is measured;**

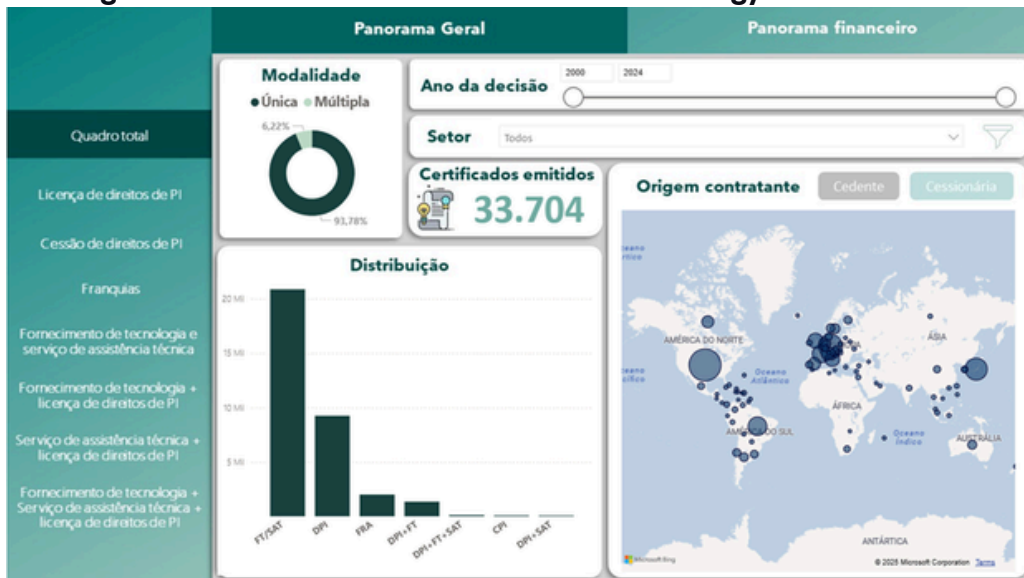
- 3) Active communication and onboarding of both suppliers and demand-side users must be planned from the outset;
- 4) The platform should interface with valuation mechanisms and, ideally, with a secondary market, in order to transform visibility into transactions.

The Technology Contracts Information Panorama is an interactive dashboard that visually and filterably organizes the recordations and registrations of technology transfer contracts in the country. Covering decisions from 2000 to 2024, it allows filtering by year, economic sector, country of origin of the assignor and assignee, and by contractual modality (license, assignment, franchise, technology/know-how supply, and technical and scientific assistance services). This dataset provides an informational backbone for investment in and commercialization of intangible assets and, above all, offers objective inputs for public policymaking.

### 4.3) PANORAMA OF INFORMATION AND MODALITIES OF TECHNOLOGY CONTRACTS: A TOOL TO SUPPORT IP FINANCE

The Technology Contracts Information Panorama is an interactive dashboard that visually and filterably organizes the recordations and registrations of technology transfer contracts in the country. Covering decisions from 2000 to 2024, it allows filtering by year, economic sector, country of origin of the assignor and assignee, and by contractual modality (license, assignment, franchise, technology/know-how supply, and technical and scientific assistance services). This dataset provides an informational backbone for investment in and commercialization of intangible assets and, above all, offers objective inputs for public policymaking.

**Figure 7: Panorama of Information on Technology Contracts**



Source: <https://www.gov.br/inpi/pt-br/servicos/contratos-de-tecnologia-e-de-franquia/panorama-de-informacoes-e-modalidades-de-contratos-de-tecnologia>

In the context of IP finance, the Panorama performs critical functions in reducing information asymmetry and supporting pricing:

- 1. Market references and probability of transaction.** Historical series by sector and modality signal where licensing and assignments have already gained traction, helping banks and funds estimate the potential liquidity of the underlying asset (probability of licensing or disposal) and calibrate risk parameters by technological segment.
- 2. Demand signaling and maturity.** The annual evolution of certificates by area reveals cycles of technological adoption and sectoral dynamics (peaks in licensing, expansion of technology franchises, concentration by origin of assignor and assignee), which is useful for defining credit limits, maturities, and collateral structures.
- 3. Regulatory and contractual benchmarking.** The distinction between modalities that involve rights (licensing and assignment of patents, trademarks, industrial designs, and integrated circuit topographies; franchising involving the use of trademarks or patents) and modalities that do not involve rights (know-how and technical assistance) helps separate flows that generate enforceable rights—more suitable for collateral structures—from those that are inherently non-appropriable, guiding collateral eligibility.
- 4. Due diligence and governance.** Standardized metadata (sector, country, modality, year) facilitates comparative analyses across transactions, accelerates audits, and creates compliance trails for originators, valuers, and lenders. Together with INPI annotations (encumbrances, collateral, releases), the Panorama forms a unique informational dossier for underwriting.
- 5. Basis for valuation and pricing policy.** Although it does not replace valuation reports, the temporal and sectoral mass of data in the Panorama serves as an input for valuation models (e.g., conversion rates into contracts, persistence by sector, monetization profiles by modality), contributing to “comparables analyses” that support cash flow assumptions and discount rates.
- 6. Integration with the secondary market.** By revealing where licensing and assignments are most recurrent, the dashboard points to areas more conducive to the creation of showcases and intangible auctions, reinforcing the liquidity strategy required for IP finance.

To enhance its impact on credit, it is recommended to: (i) ensure interoperability between the Panorama and the future annotation search (*BuscaWeb*), allowing each asset or contract to be linked to its encumbrances and relevant events; (ii) publish synthetic indicators (for example, contracts per 1,000 protected assets by sector, annual growth rate by modality); and (iii) progressively enrich the dataset with economic elements (where available), such as value ranges and types of remuneration (fixed or variable royalties), subject to legal and confidentiality constraints.

**The Panorama transforms dispersed records into applied market intelligence: it reduces opacity, increases comparability, and creates the statistical foundation for origination, risk analysis, enforcement, and the design of IP-backed financial products. It is the informational link that connects the registration system to modern credit practices, an indispensable condition for scaling IP finance in Brazil.**

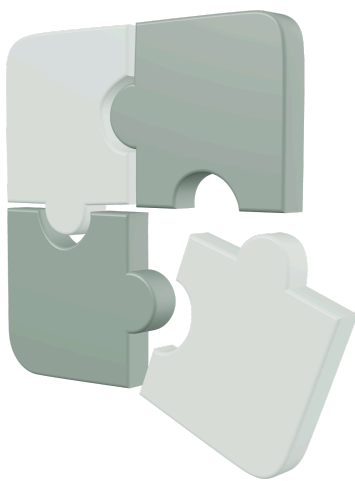
# DEMAND FOR FINANCING BY COMPANIES WITH RELEVANT IP PORTFOLIOS

After the international comparative analysis and the identification of the main structural barriers to the development of IP finance in Brazil — such as the absence of a secondary market, the difficulty of standardized valuation, and the low level of intellectual property culture — it becomes essential to understand the reality of the national market from the perspective of its key actors.

Many companies, particularly startups and scientific and technological institutions, are intensive in intangible assets but poor in tangible assets, which excludes them from conventional credit lines. The lack of confidence on the supply side — represented by financial institutions — remains the main bottleneck. The absence of standardized methodologies, a secondary market, and a transparent registration system creates an environment of high uncertainty, which inhibits the supply of financial products. On the other hand, the actual needs and interests of domestic actors — the demand side — remain largely unknown.

This section presents the proposal for an empirical survey conducted with Brazilian stakeholders, with the objective of mapping their financing needs, perceptions regarding the use of IP assets as collateral, and willingness to participate in IP finance transactions. This initiative is aligned with the National Intellectual Property Strategy (item 3.2 of Axis 1 of the Annex to Decree No. 10,886, of December 7, 2021) and with the Nova Indústria Brasil plan.

The survey will be carried out through the application of a quantitative and qualitative questionnaire directed at innovative companies, startups, science and technology institutions, and sectoral associations. The central objective is to answer the following questions:



- **What are the main financing needs of innovative companies in Brazil?**
- **What is the level of knowledge and familiarity with the concept of IP finance?**
- **Is there a willingness to use IP assets as collateral in credit operations?**
- **What are the main barriers perceived by stakeholders to the adoption of IP finance?**

The results obtained will provide a robust empirical basis to guide public policies, support actions, and the development of financial products aligned with the Brazilian reality.

## 5.1 METHODOLOGY

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### 5.1.1 RESEARCH DESIGN

The research will adopt an approach combining quantitative data obtained through objective questions with open-ended questions. This strategy will allow not only the mapping of trends and behavioral patterns, but also a deeper understanding of the motivations, perceptions, and dilemmas faced by ecosystem actors.

The questionnaire will initially include questions to identify the profile of the companies, followed by statements rated according to a five-point NPS (Net Promoter Score) scale, ranging from 1 to 5, from “strongly disagree” to “strongly agree,” as well as qualitative and open-ended questions.

### 5.1.2 SAMPLING



The target audience was segmented into the following groups:

1. Innovative companies and startups (with registered patents, trademarks, or software);
2. Science and Technology Institutions and Universities.


The questionnaire will be disseminated through innovation networks, sectoral associations (such as ABPI, Anprotec, and the National Confederation of Industry (CNI)), incubators, and partnerships with the INPI. The sample is intended to be representative of the country’s main innovation hubs (São Paulo, Minas Gerais, Rio Grande do Sul, Paraná, and the Federal District).

This initiative seeks to demonstrate, through empirical data, that the Brazilian market has real and potential demand for IP finance, especially among innovative companies and science and technology institutions.

The barriers to be mapped — lack of standardized valuation, absence of a secondary market, and low IP culture within the financial sector — may be correlated with the findings of international benchmarking and may guide coordinated actions among government, the private sector, and academia, particularly with regard to the creation of funds aimed at financing the research target audience.

Thus, one of the greatest barriers to IP finance in Brazil may be the need to overcome entrenched paradigms, which are also associated with a lack of knowledge of the subject. It is therefore essential to expand the dissemination of intellectual property — especially industrial property — reducing misconceptions and building security mechanisms that enable national industrial development.

# DISSEMINATION OF IP AS A FACILITATOR FOR THE CREATION OF AN IP FINANCE SYSTEM



In May 2025, CGTEC participated in the event “IP Finance: The Contribution of Intellectual Property in the Context of Corporate Restructuring,” promoted by the BNDES Center for Legal Studies (see Image 1). The initiative was part of the agenda to disseminate the topic among strategic actors in the financial and innovation systems, with a focus on the use of intangible assets as instruments for access to credit, particularly in the context of companies undergoing restructuring. At the event, BNDES publicly expressed interest in collaborating in the construction of the IP finance ecosystem in Brazil, signaling openness to partnerships and projects that bring together informational standards, governance, and risk-mitigation instruments.

The participation also generated recognition and institutional follow-ups. ABPI congratulated CGTEC on the report “Unlocking IP Finance in Brazil” and reinforced the need to advance the agenda of financing based on intangibles. MDIC, through Miguel Dall’Orto, expressed support for the topic and highlighted the importance of alignment among the various actors under its coordination. Subsequently, CGTEC received an invitation from BNDES, through senior legal advisor Humberto Eustáquio César Mota Filho, to present the subject to the Governance Council of the Commercial Association of Rio de Janeiro, with an emphasis on the relevance of governance for the development of IP finance (Images 2 and 3).

Within the context of this document, CGTEC will continue to promote the topic with key institutions such as the National Confederation of Industry (CNI), members of the national innovation system, academia, and Brazilian science and technology institutions, through events, workshops, and strategic partnerships, with the aim of building a common foundation of concepts, procedures, and metrics that enables integration between intellectual property policy and credit and investment instruments.

**Image 1: Speakers and organizers of the event at BNDES**



Source: BNDES

**Image 2: General Coordinator of CGTEC, Bernardo Bemvindo, presenting at ACRJ**



Source: ACRJ

**Image 3: Coordinator of the IP Finance Working Group, Ângelo Alves, presenting at ACRJ**



Source: ACRJ

# GOVERNANCE: A STRUCTURING CONDITION FOR AN IP FINANCE SYSTEM

The consolidation of an IP finance system depends less on a “major technological solution” and more on governance: stable coordination arrangements, clear rules, metrics, and decision-making processes that connect those who create value (universities, NITs, science and technology institutions, entrepreneurs) with those who provide financing (FINEP, BNDES, banks, fintechs), those who regulate and record (INPI), those who represent the sector (ABPI, Licensing Executives Society International (LESI), CNI, among others), and those who orchestrate public policies (MDIC). Without this framework, well-known problems—low investment in research, development, and innovation, fragmented action, the absence of a shared agenda, and information asymmetries—persist and prevent IP assets from being transformed into credit and investment.

Effective governance begins with a collaborative, multisectoral network, with clearly defined roles and shared goals:



- the INPI standardizes and gives public notice to critical information (annotations, ownership events, indicators);



- the MDIC articulates policies and aligns incentives;



- the financial system translates IP into credit products (criteria, collateral, risk, securitization);



- NITs and science and technology institutions qualify origination (prospecting, documentary compliance, market evidence);



- representative entities and the business community ensure practical adherence and capillarity.

# CONCLUSION



The report sets out an operational pathway for the bankability of intellectual property in Brazil based on three pillars: (i) standardized and publicly available information, (ii) minimum liquidity mechanisms, and (iii) clear governance. The diagnosis shows that the combination of heterogeneous valuation practices, the absence of a secondary market, and registry opacity keeps IP as a form of collateral with low acceptance; the consolidated solutions reduce asymmetries and increase predictability for origination, risk analysis, and the eventual enforcement of guarantees.

From an informational standpoint, the document identifies gaps in annotations, references international practices, and structures a technical taxonomy of relevance for IP-backed credit, with minimum metadata requirements and public access. This arrangement supports auditability, due diligence, and traceability, improving decision-making by lenders and investors. With respect to liquidity and pricing, lessons from technology showcases and the previous “IP Showcase” experience inform guidelines for a national, interoperable environment; the Technology Contracts Information Panorama functions as an analytical layer, offering historical series by sector and modality and supporting the calibration of risk and pricing parameters.

The dissemination agenda reinforces these pillars by building a shared language between financial and innovation actors. In 2025, participation in the BNDES event (“IP Finance: The Contribution of Intellectual Property in the Context of Corporate Restructuring”) and related interactions — including recognition from ABPI, expressions of support from MDIC, and presentations at ACRJ — expanded the technical reach of the topic among strategic audiences. These initiatives strengthen understanding of the use of intangibles in credit, disseminate informational standards, and bring the governance discussion closer to the adoption of IP-backed instruments.

In summary, the report’s central contribution is to transform a diffuse topic into an operational agenda: clear and searchable annotations, an applied statistical base, guidelines for an interoperable showcase, the design of a demand survey, and qualified stakeholder engagement. With comparable data, traceability, and auditable procedures, intellectual property ceases to be an opaque stock on balance sheets and becomes an objective component of the pool of credit-eligible assets—a condition for reducing uncertainty, improving risk pricing, and expanding financing for innovation in the country.

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