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**Intellectual property:
changes in industry and
the new agenda**
short version

39

**Intellectual property:
changes in industry and
the new agenda**

short version

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Intellectual property: changes in industry and the new agenda

short version

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Strategic Map
OF INDUSTRY 2013-2022
AN AGENDA FOR COMPETITIVENESS

BRAZIL, 2014

 CNI PROPOSALS FOR THE
2014 Elections

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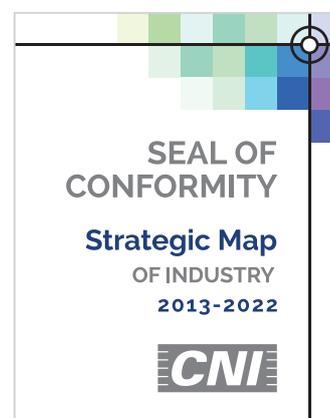
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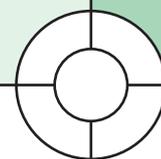
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The **Strategic Map of Industry 2013-2022** presents guidelines designed to increase the competitiveness of Brazilian industry and promote Brazil's growth. The map presents ten key factors for competitiveness and this document is the result of a project linked to the Innovation and Productivity key factor.

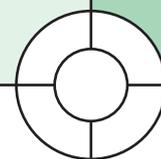




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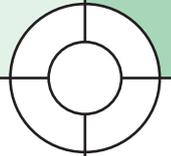
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EXECUTIVE SUMMARY

Intellectual property (IP) has taken on a new importance for Brazilian industry in its current stage. Six factors reinforce the need for a modern approach to the subject: the competitiveness of enterprises; its technological frontier has been reached; technology development under open innovation regimes; opportunities for attracting R&D centers; the need to fight piracy; and the need to improve the law.

The competitiveness of companies depends on their access to the latest technologies. Ensuring such access requires respect for the intellectual property rights of suppliers and partners of enterprises and that they generate and increase their own intellectual capital. Weak IP protection systems increase the cost for accessing technologies or make such access impossible altogether.

Brazil has leading companies in some market segments, such as in the energy, oil and gas (O&G), financial, aerospace, mining, food and construction industries. Leading companies in global value chains are those that coordinate the generation, protection and use of intellectual property rights in the form of trademarks, patents, trade secrets, industrial designs, computer programs, copyrights and other types of useful information and knowledge for markets. Creating leaders in these and many other sectors, including in higher value-added and more innovation-intensive ones, is a real possibility today. Examples include the

information and communication technology (ICT) and biotechnology sectors. Creating a business environment in which intellectual property is secure is a fundamental need.

It is essential to develop technologies under open innovation schemes. Modern information technologies have expanded the potential for collaboration between networks of enterprises and among enterprises, universities and knowledge centers for innovation. What is referred to as open innovation requires continued mutual respect for the intellectual property of each of these actors, as no collaboration is possible in this area without legal certainty. Brazilian companies need to operate under equal conditions to those experienced by their international competitors to be respected and to participate in the world of open innovation as equals.

Brazil needs to attract Research and Development (R&D) centers to its territory. Brazil can integrate into the upper level of global value chains through R&D centers of both domestic and multinational companies. This possibility is afforded by the size and characteristics of the Brazilian market, as well as by its pool of talents and scientific and technological infrastructure, as confirmed by companies that set up such centers on the Fundão Island in Rio de Janeiro. A sound environment for intellectual property is necessary to strengthen Brazil's capacity to attract such centers.

Brazil needs to fight piracy and other intellectual property violations with stringency. They distort how economies operate. Piracy jeopardizes tax revenues, compromises the functioning of companies and their establishment in the formal sector of the economy, undermines consumer rights and discourages innovation and artistic, literary and scientific creation in the country. The increasing presence of "pirated" products in the market has an impact on Brazilian industry and constitutes an obstacle to the development of national brands and products and to Brazil's inclusion in global value chains, besides discouraging foreign direct investment (FDI) and exports.

The Brazilian intellectual property law is recent and broad, although it is still incomplete. Many bills have been proposed to improve Brazil's Industrial Property and Copyright laws, but omissions and shortcomings still prevail. Rights in key fields for Brazil to advance have not been appropriately ensured, such as in those of biotechnology and information and communication technologies (ICTs), protection of trade secrets and technology licensing agreements. In Brazil, difficulties also prevail in international transactions involving licenses for IP rights and the sharing of trade secrets.

Intellectual property depends on the proper functioning of the agencies in charge of examining and granting such rights.

In Brazil, the main agency in charge of granting intellectual property rights is the National Institute for Industrial Property (INPI), which is responsible for processing, disseminating and managing the system through which intellectual property rights are granted and ensured to industry in the country. However, the institute has only 192 patent examiners, while the United States has 7,831; Japan has 1,713; South Korea has 813, and the European Patent Office has 3,987. The weak structure available to the INPI affects Brazilian industry and other parties that would like to invest in innovation in the country. The Brazilian government is well aware of these shortcomings and possible solutions for them have also been known for years, but the political decision to address them has not been taken so far.

Brazil needs to reduce the time it takes for a patent application to be examined. Today, the average time for the INPI to examine a patent application is 10.8 years.

In South Korea, the average time is 1.8 years; in China it is 1.9 years; in Japan, 2.5 years; in the United States, 2.6 years and, in Europe, about three years. Reducing this time is crucial for Brazil to achieve its goals in the area of Science, Technology and Innovation (ST&I), such as that of attracting more R&D centers to its territory.

Brazil must also take measures to reduce the number of patent applications waiting to be examined, which is an indicator of the burden of accumulated work in intellectual property offices.

The backlog in Brazil in 2012 amounted to 166,181 patents. In 2013, it rose to 184,224 patents in the queue. The figure for patents in the queue per examiner is 9,595. In the United States, that number is 77. In Japan, it is 186. In Europe, 91. In South Korea, 643. In 2012, the INPI had 225 examiners. In 2013, this number dropped to 192 and about 30 of these examiners will reach retirement age in 2014. What this means is that the problem only increases. The long time it takes for the INPI to examine and grant patents discourages domestic entrepreneurs from applying for legal protection for their technological innovations in Brazil, often leading them to seek this protection in other markets, or even not to seek any protection.

The INPI needs to be strengthened and to collaborate more intensely with its international peers.

The INPI's response capacity can be improved without any fiscal impact, as the operations and other expenses of the Institute are entirely covered by the fees charged from the users of its services.

Industry believes that respecting intellectual property rights generates wider benefits for society.

When such rights are granted and used in a fair and balanced way, they contribute to a more rapid dissemination of knowledge, facilitate technology transfer and innovation, and generate growth.

Recommendations

1 Ensuring the autonomy of and operational improvement in the INPI

- Ensuring administrative and financial autonomy to the INPI for the funds collected through the fees charged for the services provided by the institute to be reinvested in modernizing and expanding it, in the provision of quality services within desirable deadlines for its clients, in increasing its revenue and in promoting efficiency on an ongoing basis.
- Turning the INPI into the only competent agency in charge of implementing intellectual property standards (examination and granting of rights, including in the pharmaceutical area), eliminating the involvement of additional agencies in processing patent examinations.
- Preparing the professional staff of the institute realistically to work in other areas of examination of industrial property rights (trademarks, industrial designs, technology transfer agreements) and to carry out administrative tasks of the institute, considering its current weaknesses and the expected growth in demand in coming years.
- Offering, through its Internet portal (www.inpi.gov.br), the entire portfolio of services provided to users and computerizing its (internal and external) processes to upgrade them to the standards of the best intellectual property offices in the world.

2 Reducing the average time required for examining patent applications

- Reducing the time (backlog) it takes for the INPI to process patent applications to four years at most over a period of four years.
- Optimizing, promoting the automation of internal processes and giving priority to examining patents in strategic technology areas, as indicated by a committee made up of representatives of the INPI, of industry and of scientific and technological institutions (STIs).
- Increasing the staff of examiners based on a required calculated average productivity rate of 85-75 patents/examiner/year for an average projected flow of 50,000 examinations of patent applications/year by hiring and training professionals immediately and reviewing the career of examiners with the aim of retaining new examiners by offering them competitive conditions in relation to the market.

- Entering into technical cooperation agreements with major international offices to speed up the examination of PPH (Patent Prosecution Highway)-type patents and developing other regional collaboration arrangements such as the Prosur, without loss of autonomy for the INPI to make the final decision on granting such rights.

3 Ensuring legal and economic certainty in the field of intellectual property

- Speeding up the process of granting or denying patent applications for companies to enjoy incentives and/or authorizations associated with patent rights (pharmaceuticals, tax incentives for innovation, etc.).
- Issuing a decree to regulate the registration of rights and IP contracts by the INPI, ensuring the confidentiality of information contained therein.
- Updating provisions of the income tax law regarding tax deductibility of payments for IP licensing and the provision or licensing of technology, know-how or technical assistance.

4 Improving the Industrial Property Law and the Copyright Law

- Allowing for inventions related to living organisms and genetically modified organisms (GMOs) to be protected by patents.
- Allowing patents for technologies implemented through business models, mathematical methods and computer programs.
- Lending greater clarity to rights on inventions in the virtual world, drawing a clear distinction between them and scientific discoveries in the Industrial Property Law.
- Consolidating the possibility of registering marks that can be perceived by any of the senses and not only by sight.
- Relying on the international legislative experience and jurisprudence to eliminate lingering uncertainties in the protection of industrial designs, which are particularly prevalent in disputes between automakers and small producers of auto parts.
- Eliminating or simplifying the registration of technology transfer agreements, minimizing the interference of the State, respecting the wishes of the parties and not imposing any kind of barriers on entering into such agreements, which are essential for the development of innovation in our country.

- Creating a specific legal framework for protecting trade secrets to complement the current legislation with the aim of providing greater clarity and certainty for organizations that adopt that strategy.
- Modernizing the Copyright Law, adjusting it to the reality of the knowledge economy era in the digital environment and the Internet, including by meeting specific advertising production needs of companies in a competitive environment.

5 Improving the regulatory framework and stimulating R&D with biodiversity

- Encouraging the use of Brazilian biodiversity to ensure the feasibility of investments in research, development and innovation (RD&I) in the academic and business environment.
- Establishing a new legal framework to ensure access to genetic resources and associated traditional knowledge, meeting the objectives of stimulating innovation and removing the barriers to scientific and technological development imposed by the current legislation. The scope of the new legislation should be restricted to native species in Brazil and should not encompass naturalized or exotic domesticated species.
- Ensuring that the new legal framework will not require prior authorization for promoting an enabling environment for regularizing ongoing activities, avoiding the application of fines on users, bureaucratic hurdles and considerable delays in research and development deadlines. A simple online system should be adopted for registering accesses and subsequent annual notifications of developed products.
- Establishing transparent and swift mechanisms within the new regulatory framework for sharing benefits from using genetic resources and associated traditional knowledge that do not to inhibit business activity at the domestic and international levels, considering the Convention on Biological Diversity (CBD) and the Nagoya Protocol. Avoiding high percentages of benefit sharing, as indicated in the latest government proposal of 1%, which are economically unfeasible, and allowing benefits to be freely and directly negotiated with communities that conserve biodiversity, including through projects, without the participation of the Federal Administration in contracts in this case.
- Reforming the model and practices of the Genetic Heritage Council (CGEN) under the new legal framework with the participation of the business sector and deciding on outstanding issues with greater speed, technical consistency and legal certainty.

- Allowing for inventions related to living organisms and genetically modified organisms (GMOs) to be protected by patents, as indicated in item 4 above;
- Reviewing Law No. 9,456/97 with the aim of expanding the scope of protection for cultivars (which are important for agribusiness) to cover any plant genre and species in a cumulative, distinct, homogeneous and stable fashion, and also of expanding the scope of plant breeders' rights, restricting the unauthorized marketing of protected cultivars and regulating exceptions to this right more precisely.

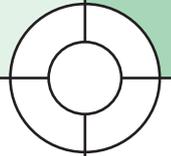
6 Combating crimes against intellectual property

- Addressing piracy through all legal means, including through greater international cooperation, particularly with countries of origin or transit of illegal goods.
- Expanding public actions to prevent and combat piracy and offenses against intellectual property with the aim of promoting institutional certainty, curbing unfair competition and protecting investments.
- Preparing and strengthening institutions directly involved in combating piracy and eventually creating specialized forces to repress it, as is done in some regulatory agencies.
- Strengthening and supporting the actions of the National Council Against Piracy of the Ministry of Justice (CNCP-MJ), through properly structured and trained repression bodies. The INPI can and should be equipped to support the CNCP and the competent law enforcement agencies technically and operationally.
- Strengthening and modernizing the judiciary and its administrative bodies to ensure due diligence and legal certainty in defending intellectual property rights in Brazil.
- Reforming the Brazilian Penal Code in its provisions on Crimes against Immaterial Property, which include violations of copyright and related rights, taking into account the rapid technological advancement taking place worldwide and new forms of reproduction of protected works, as illegal reproductions can cause immeasurable damage to the Brazilian creative industry, authors and interpreters.

7 Deepening Brazil's international integration in the field of intellectual property

- Deepening Brazil's integration with the aim of expanding benefits for companies that adhere to international IP treaties.

- Accessing to the Madrid Protocol, which facilitates the filing of trademark applications with industrial property offices in signatory countries simultaneously.
- Accessing to the Hague Agreement to facilitate the filing of industrial design applications with industrial property offices in signatory countries simultaneously.
- Accessing to the Singapore Treaty, which standardizes procedural aspects of trademark registration and licensing in signatory countries.
- Accessing to the Lisbon Agreement, an international registration system that makes it possible to protect a designation of origin (DO), a specific type of geographical indication (GI), in all Member States simultaneously.
- Participating actively in international IP forums, supporting positions that may favor Brazil's international competitiveness, in line with the innovation and development agenda of government and industry, particularly in those of the World Intellectual Property Organization (WIPO) and of the World Trade Organization (WTO) on the matter.



INTRODUCTION

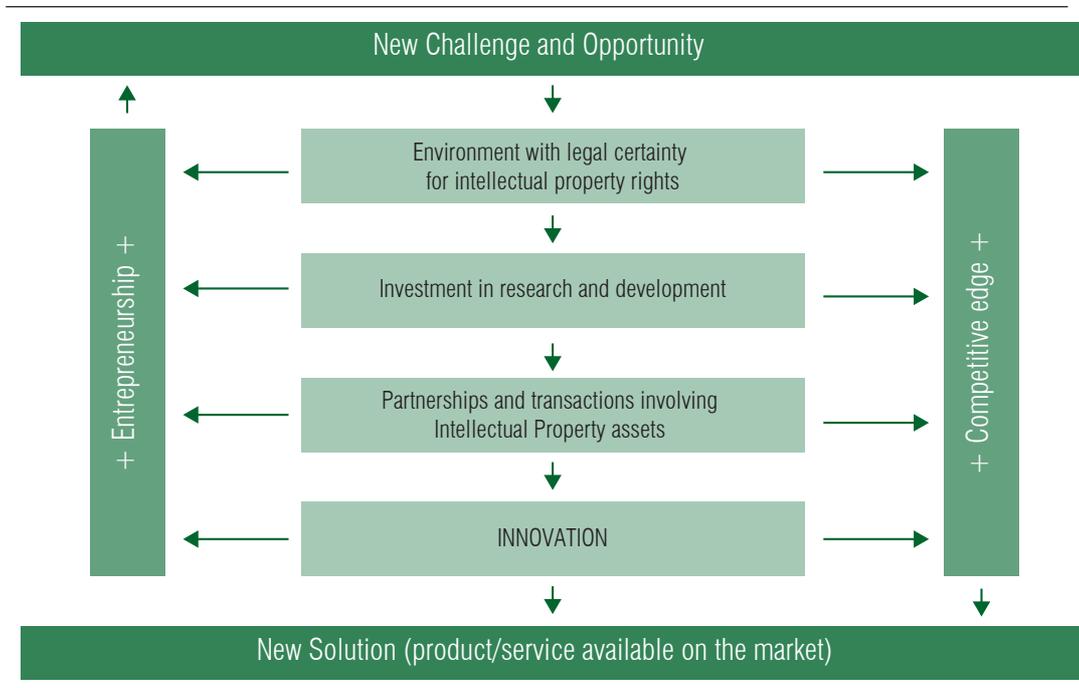
Innovation is the engine of competitiveness and development. Changes taking place in the world reinforce that role: instant communication, globalization of markets and reduction of boundaries for disseminating knowledge and technology.

This scenario favors contributions from small business owners, entrepreneurs, inventors, scientists, designers and artists, who more than ever have the means to invent, disseminate and market their creations and innovations, generating adequate returns on investments and bringing benefits to society.

For these opportunities to be captured, it is imperative to turn creative works into economic assets. That is the purpose of Intellectual Property (IP) rights, which are designed to protect intangible assets resulting from intellectual work.

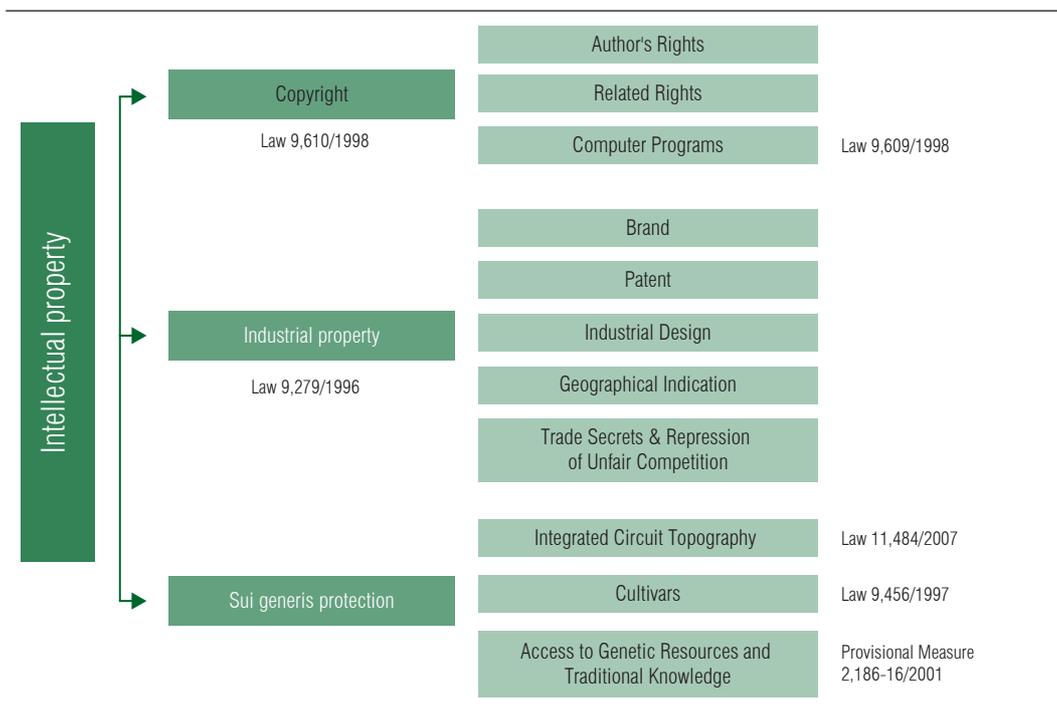
Competition and collaboration are key elements of the innovation process and they stimulate entrepreneurship. Appropriately established property rights on intellectual assets make it possible to balance these dynamics, facilitating transactions and driving entrepreneurial actions. The virtuous cycle of innovation and entrepreneurship leads in turn nations to become more competitive (Figure 1).

FIGURE 1 – THE VIRTUOUS CIRCLE OF INNOVATION



The Brazilian Intellectual Property System, as those of all member nations of the World Trade Organization (WTO), covers several types of rights inherent in intellectual activity in the industrial, scientific, literary or artistic fields (Figure 2).

FIGURE 2 – OVERVIEW OF THE REGULATORY FRAMEWORK OF INTELLECTUAL PROPERTY IN BRAZIL



Patents for inventions and utility models and exclusive rights on trademarks, industrial designs, computer programs, integrated circuits and new cultivars play a key role in ensuring investments in critical areas for Brazil's development. Protecting visual arts, literature and audiovisual creations supported by copyright and related rights constitutes the foundation of creative industries, which is becoming increasingly important economically worldwide and in our country particularly.

The Brazilian intellectual property law is recent, broad and largely in line with international best practices. However, it is still incomplete (Figure 2). Our laws have been reviewed to meet the requirement set out in the Brazilian Constitution of 1988 of ensuring the rights of inventors and creators without discrimination. In the 1990s, the Industrial Property Law, the Copyright and Related Rights Law, the Computer Program Law and the Cultivar Protection Law were passed. And the Law on Protection of Printed Circuit Architecture was passed in the following decade.

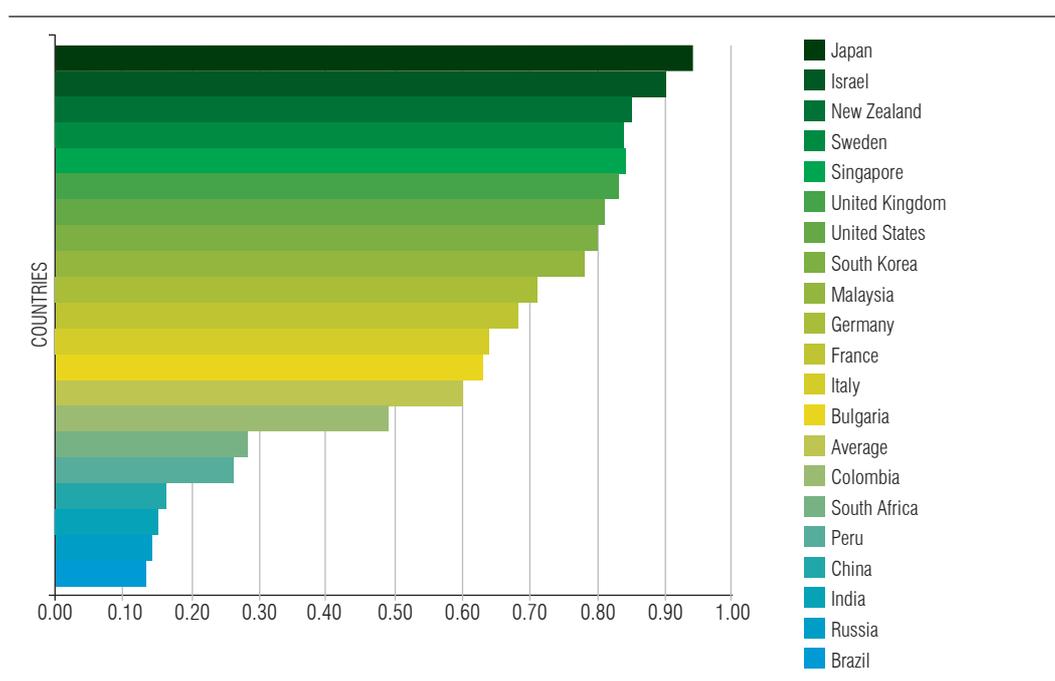
But serious omissions and shortcomings still prevail in the domestic legislation and, for this reason, many bills were proposed for improving these laws and complementary legislation. An example of such omissions is the fact that our legal framework still does not ensure rights appropriately in advanced technical fields that are crucial to Brazil's progress, such as in the fields of biotechnology and information and communication technologies (ICTs). Examples of anachronism include unique difficulties faced in our country to carry out international transactions involving licenses for using intellectual property and the sharing of trade secrets in business operations. These difficulties are derived from constraints inherited from the import substitution period that were not entirely removed in the new Industrial Property Law and from the practices of the National Institute for Industrial Property (INPI).

The Organization for Economic Cooperation and Development (OECD) released a study in January 2014 comparing how trade secrets are protected in 21 countries, including Brazil. Brazil was ranked 14th in the world in the Trade Secrets Protection Index.

Shortcomings can be noticed when one analyzes the index components. Brazil was ranked seventh in the "definition and coverage" parameter, which refers to general rules on the subject, but it was ranked last in the "system functioning and related regulation" parameter (Graph 1). That is, although the legal framework for protecting secrets is consistent with international practice, an environment that is unfavorable to business is established as a result of the difficulties involved in applying it in practice.

These results suggest the need to strengthen the protection available for intellectual property. These shortcomings affect investments in innovation in Brazil: this scenario is unfavorable to the country's strategy of promoting investment in research and development (R&D) by Brazilian companies; it makes it difficult to attract R&D centers of multinational companies to Brazil, as well as to develop collaboration arrangements between these foreign multinational companies and Brazilian companies and research centers.

GRAPH 1 – COMPARATIVE ANALYSIS OF THE PROTECTION AVAILABLE FOR TRADE SECRETS IN RELATION TO INDICATED PARAMETERS: FUNCTIONING OF THE SYSTEM AND RELATED REGULATION (BASED ON OECD DATA, 2014)



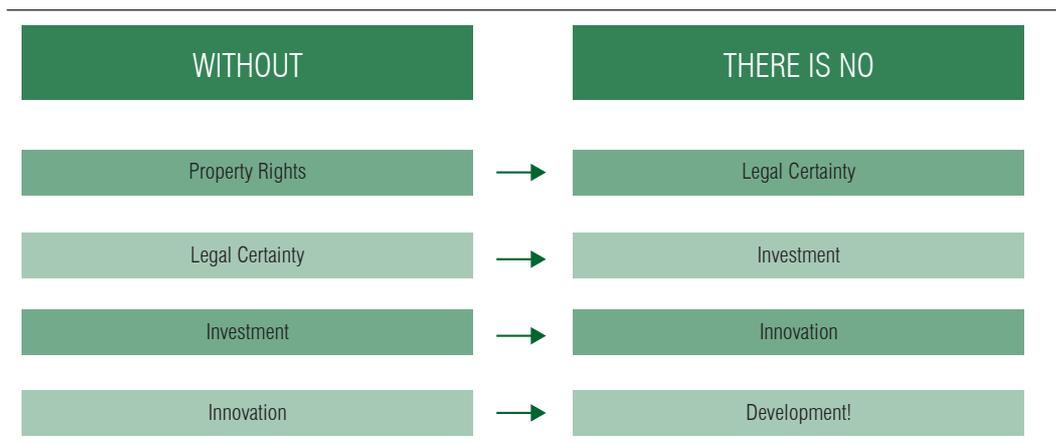
Source and Note:
Approaches to protection of undisclosed information (trade secrets), Background paper. OECD Trade Policy Paper No. 162. Jan. 2014.
Schematic drawing - CNI@2014.

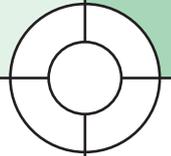
It is imperative to modernize the Brazilian regulatory framework in the area of intellectual property to ensure comprehensive legal certainty to research, development and innovation (RD&I) efforts and thus facilitate interactions between Brazilian companies and technology providers or potential partners in their innovation and internationalization efforts.

The term “knowledge economy” defines the current stage of the economy, characterized by the key role played by exchanges involving knowledge and other intangible assets. These exchanges are materialized in clauses involving intellectual property rights included in virtually all commercial contracts and agreements.

Old regulations and procedures, which limit rights on intellectual creations, continue to hinder investment and the ambitions of Brazil’s industrial development and innovation policy of turning the country into a producer, owner and exporter of knowledge, technologies, trademarks and other assets of great value (Figure 3).

FIGURE 3 – DEVELOPMENT PARADIGM IN THE KNOWLEDGE ECONOMY





1 BUSINESS ENVIRONMENT AND THE DECISION TO INVEST IN INNOVATION

Every investment decision is supported by an assessment of expected economic returns and risks involved in each resource allocation alternative. It is necessary to ensure intellectual property rights and to remove or reduce difficulties and excessive transaction costs in contracts in Brazil to avoid jeopardizing the predictability of and legal certainty over the appropriation of economic returns on innovation efforts.

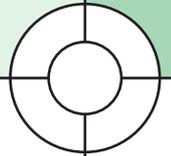
It is crucial for our industry that Brazil shares the international experience and adopts the best practices for protecting intellectual property. An increasingly internationalized economy based on the open innovation model requires high levels of harmonization of laws and procedures. Modern information technologies have expanded the potential for collaboration between business networks and between companies and universities and knowledge centers for innovation.

Open innovation requires mutual respect for the intellectual property of each participant on an ongoing basis. There can be no collaboration without certainty. Brazilian companies need to be provided with the same conditions experienced by their

international competitors to be respected and to be able to participate in the world of open innovation as equals.

Brazil has an increasing number of companies aspiring to get closer to the frontier of technological development. Leading companies in global value chains are those that coordinate the generation, protection and use of intellectual property in the form of trademarks, patents, industrial secrets and designs, computer programs, copyrights and other types of useful information and knowledge for markets at large. There are leading Brazilian companies operating in segments such as in the energy, oil and gas (O&G), financial, aerospace, mining, food and construction industries. And leaders are very likely to emerge in these and many other sectors, including in greater value-added and innovation-intensive areas, such as, for example, in the information and communication technologies (ICTs) and biotechnology industries.

Brazil can integrate into the upper level of global value chains by fostering the establishment and expansion of R&D centers of domestic and multinational companies in its territory. The size and characteristics of its market and its pool of talents and scientific and technological infrastructure afford this possibility, as indicated by companies that are setting up their research centers on the Fundão Island in the state of Rio de Janeiro.



2 STIMULUS AND TECHNICAL SUPPORT TO GENERATING AND MARKETING INTELLECTUAL PROPERTY

Because of their status as new actors in the field of innovation, most Brazilian companies have little experience in identifying, protecting, estimating the value of and negotiating their intellectual property assets, a factor that hinders their participation in global chains of collaboration and marketing of technology, brands and other intangible assets. This occurs not only in Brazil, but also in all developing and even developed countries. China, for example, detected a similar difficulty about ten years ago. In that country, the authorities in charge of promoting industrial development created structures for disseminating the best patenting practices to all its industrial centers under the guidance from SIPO, the Chinese authority equivalent to the INPI. This measure led to one of the largest exponential growths worldwide in the number of patents granted to Chinese companies. France and many developed countries have centers to support the granting of patents particularly to small and medium enterprises that are in the process of becoming innovative.

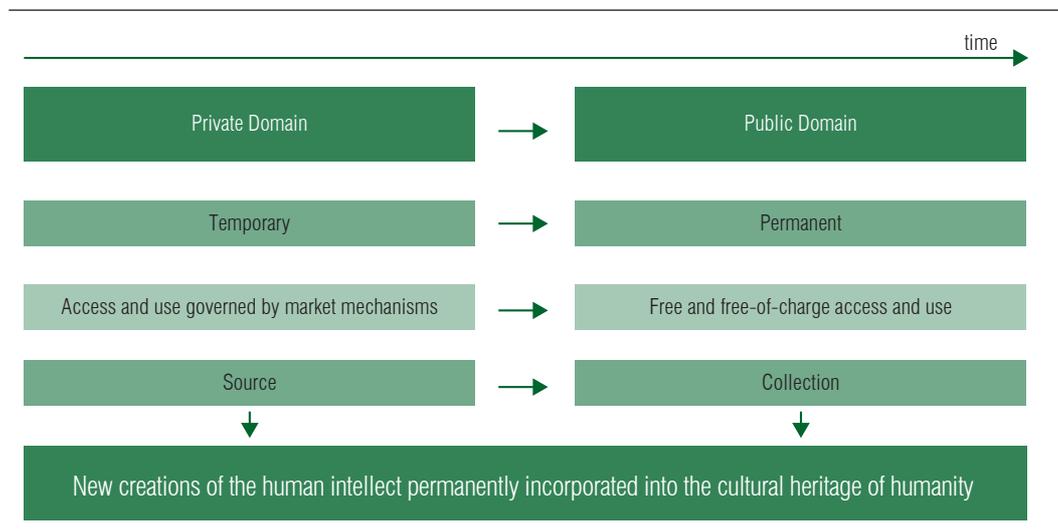
In Brazil, “Technological Innovation Centers” (NITs) linked to public universities and research centers have been set up, but they have not been meeting the needs of companies appropriately. An Intellectual Property and Innovation Academy was also set up within the INPI to provide training to companies, but its scale and coverage are still insufficient.

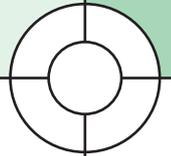
Brazil needs to follow the examples of China and France and set up a structure in every industrial center to support the identification of assets of interest and the drafting and registration of patents and other intellectual property rights and their trading and marketing. Existing institutions such as industry federations in the different states and the National Service for Industrial Learning (SENAI) can accommodate such structures.

Intellectual property must be used in a fair and balanced way to play its social role of disseminating knowledge, transferring technology and promoting development.

The IP system protects not only the results of creative activity, but also investments made to market these results. Technological, cultural and information-related assets (inventions, industrial designs, musical and literary works and other intangible assets) whose economic rights have expired fall under public domain and cannot continue to be exclusively exploited by any individual or organization. These assets can then be freely used by everyone, as they become part of the cultural heritage of humanity (Figure 4).

FIGURE 4 – INTELLECTUAL PROPERTY: FROM PRIVATE TO PUBLIC DOMAIN



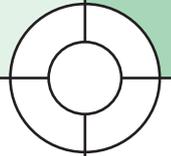


3 BASIC ASSUMPTIONS FOR DEVELOPING BRAZIL'S INTELLECTUAL PROPERTY AGENDA

Brazilian industry has taken on the challenge of proposing an agenda that it sees as fundamental for Brazil's development policy. Its aim is to ensure a better integration of the country into the so-called "knowledge economy," focused on technological development and innovation. Among the topics chosen for this purpose, that of the appropriation of the results of investment in science, technology and innovation, which have always been relevant, stood out particularly. Issues related to intellectual property - the basic tool for ensuring such appropriation - emerged as a priority in the debate between industry and government on innovation and development policies. This agenda of initiatives (that will be proposed below) is based on the following assumptions:

- The complex and interrelated nature of the research and development activities that characterize the knowledge economy and make it imperative to ensure interaction and collaboration between different companies and other institutions for innovation to occur;

- The condition of Brazilian industry as a newcomer to the innovation world, meaning that it can benefit more than others from any kind of collaboration with more experienced companies, universities and research institutions from other parts of the world;
- The progressive empowerment of Brazilian companies, universities and research centers in the field of scientific research and technological development, which makes them increasingly capable of enjoying the results of this collaboration and of the marketing of technologies with their peers in more advanced countries in the area of RD&I;
- The need to ensure Brazilian companies equal conditions to those enjoyed by their international competitors: recognition of the need to improve the Brazilian business environment to make it easier and safer to invest in innovation and to collaborate with companies, research centers and universities domestically and internationally;
- The opportunity to attract international venture capital and business and technological partners from other nations to jointly promote the technological development of products and innovative business models in Brazil;
- The opportunity afforded by recent advances in the country to foster the establishment of high-performing Brazilian startups and joint production chains with technological competence and business and negotiating expertise for launching high value-added Brazilian products and brands in the global market.



4 DEVELOPMENT OF THE BRAZILIAN INTELLECTUAL PROPERTY SYSTEM

Brazilian companies have the potential to become increasingly competitive in the knowledge economy environment, provided that appropriate institutional conditions are present in Brazil. Ensuring the protection of intellectual property rights is one of the pillars for developing such conditions.

The Intellectual Property Agenda is a proposal from Brazilian industry for presidential candidates for the 2015-2018 term. The assumptions outlined above allow us to propose two complementary public policies that can be the foundation for actions of the State in the fields of innovation and intellectual property during the next presidential term.

Action Axis	Macro goal	Indicator
	Increasing the production of new technologies and innovations by Brazilian companies.	Private investment in RD&I.
		Number of patent, trademark, industrial design applications of Brazilians and people domiciled in Brazil filed with the INPI.
Policy 1:		Number of patents of Brazilian companies in the Patent Cooperation Treaty (PCT).
Stimulating the development of the intellectual heritage of Brazilian companies.	Expanding the appropriation, protection and defense of the economic value of knowledge and technologies generated by Brazilian companies anywhere in the world.	Number of lawsuits filed by Brazilian companies before the Brazilian judiciary to defend their intellectual property.
		Number of lawsuits filed by Brazilian companies to protect their intellectual property in other countries.
	Attracting and fostering the development of global RD&I centers and stimulating research activities in Brazil that can generate intellectual property rights.	Number of patent, trademark and industrial design applications filed by foreigners in Brazil.
Policy 2:		Number of technologies developed in Brazil licensed for global applications.
Supporting the actual participation of Brazilian companies in the knowledge economy and in open innovation systems.	Promoting greater interaction between Brazilian innovative companies and between them and other actors involved in local, national and global innovation systems.	Trading in royalties.
		Inflow of foreign exchange for paying royalties.
		Number of patents, trademarks and industrial designs acquired by Brazilian on the international market.

4.1 Brazilian domestic agenda for intellectual property: specific objectives and actions to be taken by different areas of government

Objective	Action
<p>Expanding the presence of the system in support of innovation and intellectual property protection and ensuring universal access to its services by innovative entrepreneurs:</p> <p><i>The Brazilian intellectual property system should be simple, low-cost, appropriately linked to other actors and mechanisms designed to promote the development of the national innovation system and easily understandable and accessible to all Brazilian companies domiciled in Brazil or doing business in Brazil, regardless of their size or area of activity.</i></p>	<p>Entrepreneurship & Innovation:</p> <p>Promoting entrepreneurship and the economic value of creativity and innovation as key requirements for overcoming underdevelopment and eliminating poverty.</p> <hr/> <p>Communication & Dissemination:</p> <p>Establishing partnerships involving the Communication Department of the PR*, MDIC*, MCTI*, MMA*, MEC*, MinC*, CNI and industry federations, ANPEI*, SEBRAE* with comprehensive media work to raise awareness of the importance of intellectual property.</p> <hr/> <p>Education:</p> <p>Promoting modern educational guidelines through the MEC to strengthen the inclusion of topics related to entrepreneurship, innovation and intellectual property in education curricula from elementary school to graduate programs.</p> <hr/> <p>Support Service:</p> <p>Establishing partnerships with SEBRAE, CNI, Industry Federations and federal, state and local entities involved in activities to protect and defend intellectual property: universal-access services designed to support the drafting, filing, follow-up on examination and defense of patent applications of SMEs, nonprofit research institutions, researchers and independent inventors.</p>

(*) PR - Office of the President of the Republic; MDIC - Ministry of Development, Industry and Foreign Trade; MCTI - Ministry of Science, Technology and Innovation; MMA - Ministry of Environment; MEC - Ministry of Education; MinC - Ministry of Culture; CNI - National Confederation of Industry; ANPEI - National Association for Research and Development of Innovative Companies; and SEBRAE - Brazilian Micro and Small Business Support Service.

Objective	Action
<p>Improving the Regulatory Framework for Innovation, Creative Industries and Intellectual Property:</p> <p><i>Creative and innovative industries must rely on a system designed to promote and regulate their activities that is consistent with the ones available to their peers in countries with a more long-standing innovative tradition.</i></p> <p><i>Special attention must be paid to emerging fields such as biotechnology, nanotechnology applications and new information and communication technologies, which afford potential opportunities for new entrants.</i></p>	<p>MDIC/INPI supported by business associations and ABPI*:</p> <p>Revisiting, comparing with international practices and adjusting in the Brazilian legislation the limitations and restrictions imposed on patenting in the fields of biotechnology and life sciences in general.</p> <hr/> <p>MDIC/INPI supported by business associations and ABPI:</p> <p>Revisiting, comparing, clarifying and regulating limits and restrictions imposed on the patenting of ICTs in Brazil.</p> <hr/> <p>MDIC/INPI supported by business associations and ABPI:</p> <p>Discussing and adjusting the impact of restrictions imposed by Brazilian law on the appropriation of the value of nanotechnology innovations.</p> <hr/> <p>ME/MCTI/MDIC/INPI supported by business representatives and ABPI:</p> <p>Improving mechanisms for protecting and licensing intellectual property on ICTs and other actors involved in the national innovation system for Brazilian companies.</p>

(*) ABPI - Brazilian Intellectual Property Association.

Objective	Action
<p>Promoting the efficiency and reducing the red tape involved in the processes of filing, analyzing, granting and licensing intellectual property rights:</p> <p><i>The INPI or the agency that will succeeds it needs to be truly modernized and provided with sufficient autonomy to hire staff and make the necessary investments to remain accessible, simple and quick-acting.</i></p>	<p>Civil House (Office of the Chief of Staff of the Presidency of the Republic)/MDIC/INPI:</p> <p>Ensuring budget resources for the INPI and authorizations to hold competitive examinations for hiring staff.</p> <hr/> <p>INPI supported by business associations and ABPI:</p> <p>Reviewing flows and proposing improvements in the statutory and regulatory provisions applied to examining and granting rights.</p>

Objective	Action
<p>Improving the effectiveness of the intellectual property protection system:</p> <p><i>It will be useless to encourage companies to have intellectual property if defending it in the Brazilian courts is not simple, fast and inexpensive. Brazil lacks an appropriate framework for inspecting and repressing crimes against intellectual property (piracy, counterfeiting, forgery, imitation).</i></p>	<p>MJ*/CNCP*/INPI in partnership with CNI, industry federations and ABPI:</p> <p>Developing training programs and promoting training opportunities in intellectual property for judges and staff of the judiciary, law enforcement and border authorities.</p> <hr/> <p>Civil House/MP*:</p> <p>Creating an agency to carry out, in partnership with law enforcement, repressive actions defined by the CNCP of the Ministry of Justice.</p>

(*) MJ - Ministry of Justice; CNCP - National Council Against Piracy; MP - Public Prosecutor's Office.

Objective	Action
<p>Stimulating the acquisition of goods protected by intellectual property rights:</p> <p><i>As in other areas of investment, developing synergistic intellectual property portfolios requires the acquisition of intellectual property rights from third parties. Strong restrictions are imposed on financing the acquisition of intangible assets in Brazil and this situation needs to change.</i></p>	<p>BNDES*/FINEP*:</p> <p>Creating credit lines for buying trademarks and portfolios of patents and industrial designs in Brazil or abroad.</p>

(*) BNDES - Brazilian Development Bank; FINEP - Studies and Projects Financing Agency.

Objective	Action
<p>Integrating intellectual property protection and defense services offered in Brazil, improving their governance and enhancing their efficacy, efficiency and effectiveness.</p>	<p>Civil House:</p> <p>Integration-oriented action led by the Civil House to set up the National Intellectual Property Agency along the lines proposed by ABPI. This institution would be in charge of granting and defending rights, comprising all intellectual property, and it would also implement policies developed by CNCP-MJ and agencies responsible for coordinating innovation, creativity and entrepreneurship policies. The new agency would be different from the INPI not only due to its broader scope, but also to its governance: it would have a joint board of directors overseen by Congress whose members would have a well-defined mandate and whose actions would be governed by a management contract.</p>

4.2 External intellectual property agenda: Brazil's participation in international treaties and agreements and its positions in international forums

The Brazilian intellectual property system should be linked to that of other countries and to the international system to allow for and facilitate the full participation of Brazilian companies, creators, scientists and entrepreneurs in global cultural, knowledge, technology and innovation markets.

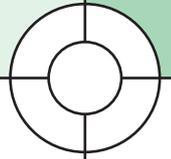
Objective	Action
<p>Aligning the Brazilian foreign policy for innovation and intellectual property with the interests of Brazilian industry, particularly of industrial segments more focused on technological development and innovation represented at CNI, SENAI, ABPI and ANPEI.</p>	<p>MRE*/MDIC/INPI/CNI/ANPEI:</p> <p>Structuring a process to ensure actual contributions of the innovative Brazilian industry to defining Brazil's proposals and positions at the WTO*, WIPO*, WHO* and other international forums where intellectual property policies, treaties and agreements are discussed or which address this subject directly or indirectly and whose action can induce or hinder the establishment of an integrated environment for intellectual property exchanges, collaboration and marketing.</p> <p>MRE/CNI/ANPEI:</p> <p>Ensuring CNI and ANPEI the status of official observers at assemblies of WIPO and of other international organizations focused on discussing intellectual property and innovation policies.</p>

(*) MRE - Ministry of External Relations; WTO - World Trade Organization; WIPO - World Intellectual Property Organization; WHO - World Health Organization.

Objective	Action
<p>Ensuring freer access to major knowledge, creativity and innovation markets to Brazilian companies.</p>	<p>MRE/MDIC/INPI:</p> <p>Promoting Brazil's accession to the main international treaties and agreements related to intellectual property, especially to those that reciprocally simplify procedures or promote greater equality around the granting of rights to foreigners, such as the Madrid Protocol, the Hague Agreement, the Lisbon Agreement and the Singapore Treaty.</p> <p>Promoting collaboration between the INPI and other intellectual property offices to make it possible for Brazil to participate in International Collaborative Examination Networks, avoiding duplication of work mainly in analyzing patent applications filed in different nations. The objective is to reduce backlogs of patent applications by sharing search data and avoiding redundancy in the work of those offices. The decision to grant patent rights, however, must be made in accordance with the laws of each nation.</p> <p>MRE/MDIC/INPI with broad participation of domestic industry:</p> <p>Participating actively in proposing and drawing up new treaties and clauses of agreements involving intellectual property at multilateral, plurilateral and bilateral fora.</p>

Objective	Action
<p>Ensuring the international competitiveness of Brazilian innovative companies by offering them, on an ongoing basis, equal or better institutional conditions to those enjoyed by companies that invest in innovation in OECD and other BRICS* member countries.</p>	<p>MRE/MDIC/INPI/CNI:</p> <p>Permanently participating in OECD working groups, forums and events focused on discussing technological development, innovation and intellectual property.</p>

(*) BRICS - Brazil; Russia; India; China; and South Africa.



5 PROPOSAL FOR BRAZIL'S INTELLECTUAL PROPERTY AGENDA

5.1 Ensuring the autonomy and operational improvement of the National Institute for Industrial Property (INPI) of Brazil

In Brazil, the main body that examines applications for and grants intellectual property rights is the National Institute for Industrial Property - INPI, which has shortcomings that affect Brazilian industry and investors in innovation. These shortcomings are well-known. Political decision to address them is lacking.

Although the INPI is a quasi-governmental federal agency that operates with a surplus, it is small and poorly equipped as compared to similar offices in other nations. For Brazil to have a modern and appropriate environment in the area of intellectual property, the INPI must operate to world-class standards, providing quality services to the users of the system within the deadlines offered by the world's best IP offices.

It is crucial that the government supports the INPI's modernization and adjustment strategy, which includes reequipping it immediately, particularly with human capital (a measure already authorized by Law 12,823/2013), and streamlining its internal procedures with the aim of speeding up the process of receiving, examining and publishing the results of trademark, patent and industrial design applications and of other applications for industrial property rights. It is only after such rights are granted by government that companies have the necessary legal certainty to market such goods in the domestic and global market.

Proposals:

- Ensuring administrative and financial autonomy to the INPI to make it possible for resources generated by its services to be reinvested in modernizing and expanding it and in providing quality services within appropriate deadlines for its clients, increasing its revenues and promoting its efficiency on an ongoing basis;
- Turning the INPI into the only authority in the country responsible for implementing intellectual property rules (analysis and granting of rights, including in the pharmaceutical area), eliminating the involvement of additional agencies in processing patent examinations;
- Adjusting the general framework of the professional staff of the institute realistically, including for other areas of examination of industrial property rights (trademarks, industrial designs, technology transfer agreements) and for its administrative department, considering its existing shortcomings and the expected increase in demand in coming years;
- Offering the full list of its services to users through its Internet portal (www.inpi.gov.br) and computerizing its (internal and external) processes, so that it can operate to the standards of the best intellectual property offices in the world.

5.2 Reducing the average time for examining patents

The impact of the INPI's current weak structure can be demonstrated by three indicators: (1) number of patent examiners, (2) backlog of patent applications and backlog/examiner and (3) the time it takes between the initial filing of a patent application and the final decision on granting it (Table 1).

TABLE 1 – PATENT DATA COMPARISON BETWEEN BRAZIL AND THE WORLD'S FIVE LARGEST INTELLECTUAL PROPERTY OFFICES (IP5)

Office	Backlog	Examiner	Backlog/ Examiner	Applications/Year	Average Time*2
USA*1	603,898	7,831	77	542,815	2.6 years
Japan*1	319,247	1,713	186	342,796	2.5 years
Europe*1	363,521	3,987	91	257,960	3 years
China*1	n/a.	2,058	n/a.	652,777	1.9 years
South Korea*1	523,040	813	64	188,915	1.8 years
BRAZIL	184,224	192	960	33,395	10.8 years

Sources and Notes:

*1 – IP5 Statistic Report, 2012. IP5 Group = [USPTO] USA + [JPO] Japan [EPO] + EU + [SIPO] China + [KIPO] South Korea (base year 2012).

*2 - Average Time for Examining a Patent Application = Filing -> Final Decision.

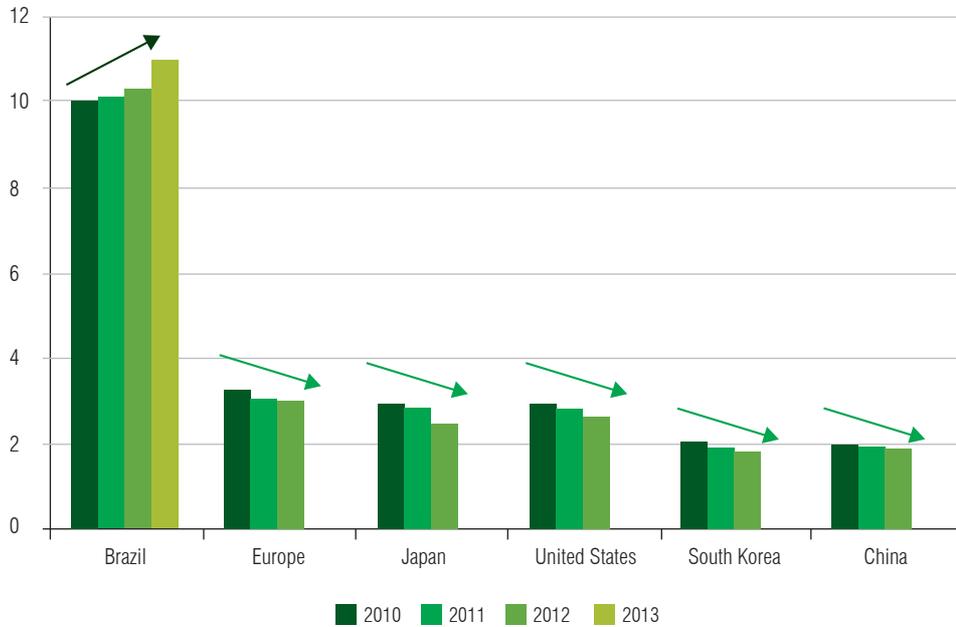
*3 - INPI Statistical data (base year 2013).

Data analysis and schematic drawing - CNI @ 2014.

While the INPI has only 192 patent examiners, the United States has 7,831, Japan has 1,713, South Korea has 813, and the European Patent Office has 3,987 (Table 1).

It takes 10.8 years on average for the INPI to examine a patent application. In South Korea, the average time to examine a patent application is 1.8 years, in China, it is 1.9 years, in Japan, 2.5 years, in the United States, 2.6 years and in Europe about 3 years (Table 1 and Graph 2). Reducing this time is fundamental for Brazil to achieve the objectives proposed for the area of Science, Technology and Innovation (ST&I) and to attract R&D centers to its territory.

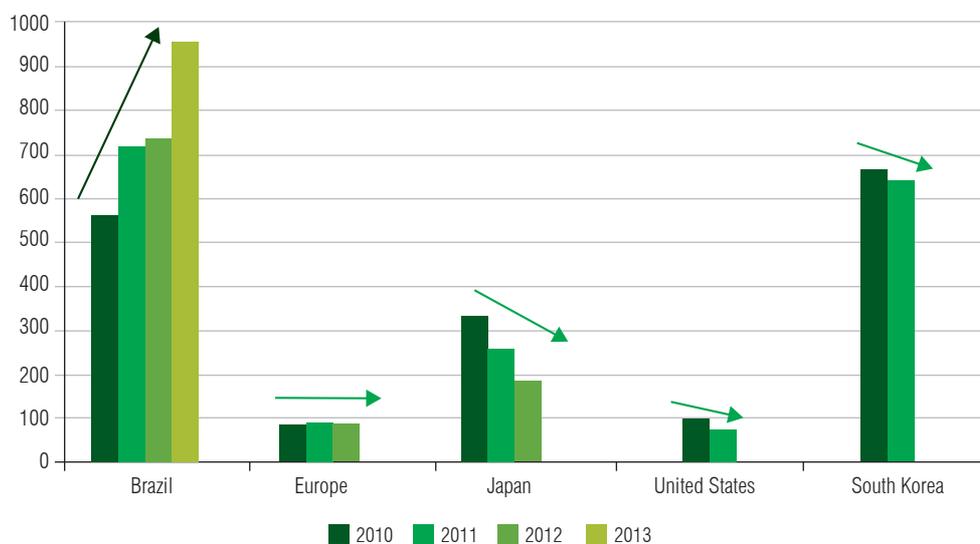
GRAPH 2 – AVERAGE TIME FOR GRANTING PATENTS IN DIFFERENT COUNTRIES



Sources and Notes:
IP5 Statistic Report, 2011 and 2012 for data for Europe, Japan, the USA, South Korea and China. INPI statistical data, 2014 for data for Brazil.
Schematic drawing - CNI @ 2014.

The long time it takes for the INPI to examine and grant patents discourages domestic entrepreneurs from applying for legal protection for their technological innovations in Brazil, often leading them to seek such protection in other markets where there are business strategies or even leading them not to apply for protection altogether. The backlog per patent examiner is a figure that reveals the burden of accumulated work in intellectual property offices (Table 1). In Brazil, this figure is 960 patent applications per examiner, in the United States the figure is 77, in Japan 186, in Europe 91 and in South Korea 643. In 2012, the INPI had 225 examiners; in 2013 that figure dropped to 192 and in 2014 about 30 of these examiners will be reaching retirement age. The backlog in 2012 amounted to 166,181 applications and in 2013 that figure rose to 184,224. What this means is that the problem only increases (Graph 3).

**GRAPH 3 – BACKLOG OF PATENT APPLICATIONS PER EXAMINER IN DIFFERENT COUNTRIES
(NUMBER OF PATENT APPLICATIONS TO BE EXAMINED/EXAMINER)**



Sources and Notes:

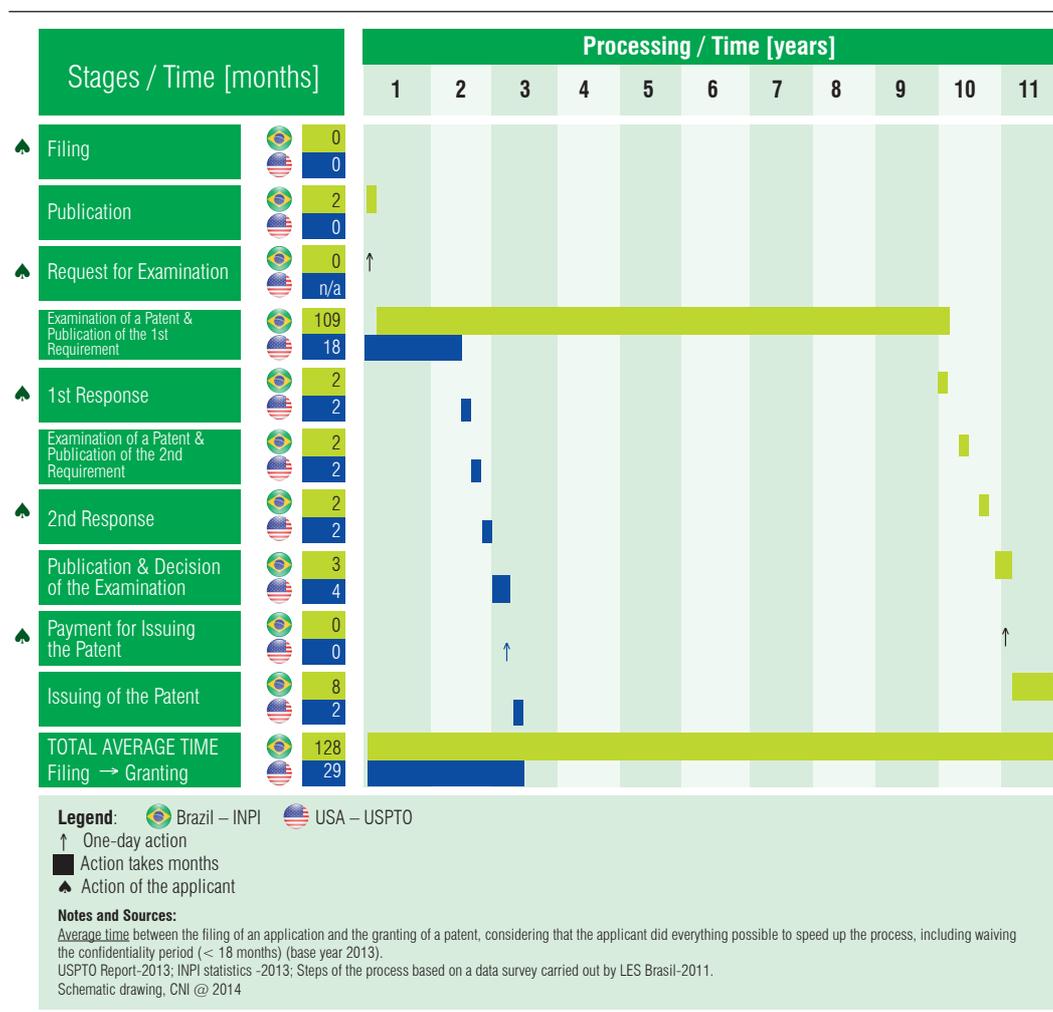
IP5 Statistic Report, 2011 and 2012 for data for Europe, Japan, the USA and South Korea.

INPI statistical data, 2014 for data for Brazil.

Schematic drawing - CNI @ 2014.

Despite the disparities between the INPI and the world's five largest IP offices (Table 1, Graphs 2 and 3), it is interesting to note that in terms of the process of examining applications for granting patent rights, the Brazilian institute adopts procedures that are quite similar to those adopted by the USPTO, as shown in Figure 5.

FIGURE 5 – COMPARATIVE ANALYSIS BETWEEN THE PROCESS OF EXAMINING AND GRANTING PATENTS ADOPTED BY BRAZIL (INPI) AND THE UNITED STATES (USPTO)



Proposals:

- Reducing the INPI's patent backlog to four years at most within a four-year management period;
- Optimizing, promoting the automation of internal examination procedures and giving priority to examining patent applications related to strategic technology areas, as indicated by a committee made up of representatives of the INPI, industry and scientific and technological institutions (STIs);

- Adjusting the staff of examiners based on a calculated average productivity rate of 85-75 patents/examiner/year for an average flow of projected examinations of patent applications of 50,000/year, hiring and training professionals immediately while reviewing the career of examiners to retain new technical staff offering them competitive conditions in relation to the market;
- Establishing international collaboration arrangements in the field of patents (as detailed in section 5.3).

5.3 Reducing the INPI's patent backlog by promoting collaboration between the institute and international offices

Cooperation agreements have been one of the mechanisms used by most of the world's intellectual property offices to reduce their backlog.

Collaboration between offices has a direct impact on productivity in examining patent applications (Tables 2 and 3). The PPH (Patent Prosecution Highway), the world's most widely used collaboration mechanism, was originally suggested by the Japanese to avoid duplication of work in intellectual property offices in examining patents filed in different nations. Its objective is that of preventing accumulated backlogs by sharing search data and avoiding redundancy of work between these offices. The decision to grant patent rights, however, must be made in accordance with the laws of each nation. The PROSUR is in turn a system designed to promote technical cooperation between industrial property offices in South America based on equal rights and obligations between the parties and consensus decisions. Areas of cooperation between the parties comprise trademarks, patents, utility models, industrial designs, geographical indications and other matters related to industrial property. Brazil participates in the PROSUR system, but not in the PPH.

TABLE 2 – COMPARISON OF THE PPH-TYPE INTERNATIONAL COOPERATION AND NUMBER OF AGREEMENTS FOR PATENT EXAMINATION AMONG IP5 COUNTRIES AND BRICS COUNTRIES

Country & Office	Type of Collaboration Agreement for Examining Patents					TOTAL *1/ Country & Office	
	Global PPH	PCT PPH	PPH	PPH Mottainai	Total of		
IP5 Block	USA/USPTO	15	21	6	19	61	27
	Japan/JPO	15	23	9	18	65	26
	Europe/EPO*2	0	4	0	4	8	4
	China/SIPO	0	9	8	6	23	14
	South Korea/ KIPO	15	18	3	54	54	21
BRICS Block	Brazil/INPI	0	0	0	0	0	0
	Russia/ ROSPATENT	15	16	1	15	47	16
	India /IP India	0	0	0	0	0	0
	China/SIPO	0	9	8	6	23	14
	South Africa/ CIPC	0	0	0	0	0	0

Sources and Notes:

PPH Portal. Data collected on 05/01/2014. www.jpo.go.jp/ppph-portal/index.htm. Accessed on 05/29/2014.

*1 - Total number of country-country collaboration instances individually.

*2 - The EPO has 38 member countries. www.epo.org/about-us/organisation/member-states.html. Accessed on 05/29/2014.

Schematic drawing - CNI @ 2014.

TABLE 3 – COMPARISON OF PPH AND PROSUR INTERNATIONAL COOPERATION TYPES AND AVERAGE TIME FOR EXAMINING PATENT APPLICATIONS BETWEEN IP5 COUNTRIES, HIGHLIGHTING TWO PROSUR COUNTRIES

Country & Office	Comparison by Country		Average Examination	
	PPH*1	PROSUR *2	TIME*3	
IP5 Block	USA/USPTO	27	0	2.6 years
	Japan/JPO	26	0	2.5 years
	Europe/EPO*4	4	0	3 years
	China/SIPO	14	0	1.9 years
	South Korea/KIPO	21	0	1.8 years
PROSUR Block*2	1 Brazil/INPI*5	0	7	10.8 years

	Colombia/SIC	2	7	n/a

Notes and Sources:

* 1 - PPH Portal. Data collected on 05/01/2014. www.jpo.go.jp/ppph-portal/index.htm. Accessed on 05/29/2014. Total number of country-country collaboration instances individually.

2 - International Collaboration Programs: "PROSUR" Portal. www.prosur.org.ar. Countries: Argentina + Chile + Colombia + Ecuador + Paraguay + Peru + Uruguay - Suriname [*only collaborates with Brazil around Trademarks].

*3 - IP5 Statistic Report, 2012 (base year 2012). Average Time for Examining Patent Applications = Time between Filing -> Final Decision.

*4 - The EPO has 38 member countries. www.epo.org/about-us/organisation/member-states.html. Accessed on 05/29/2014.

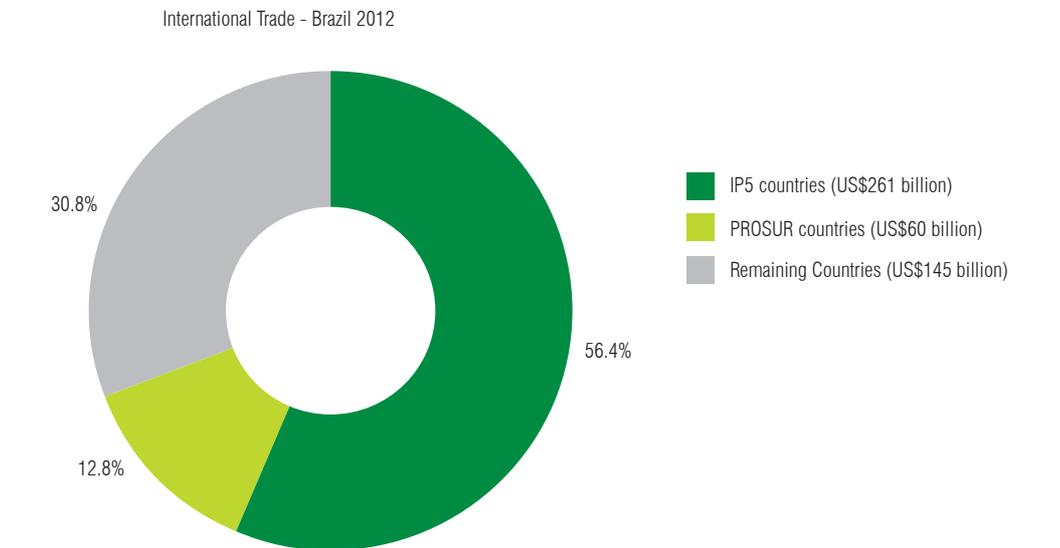
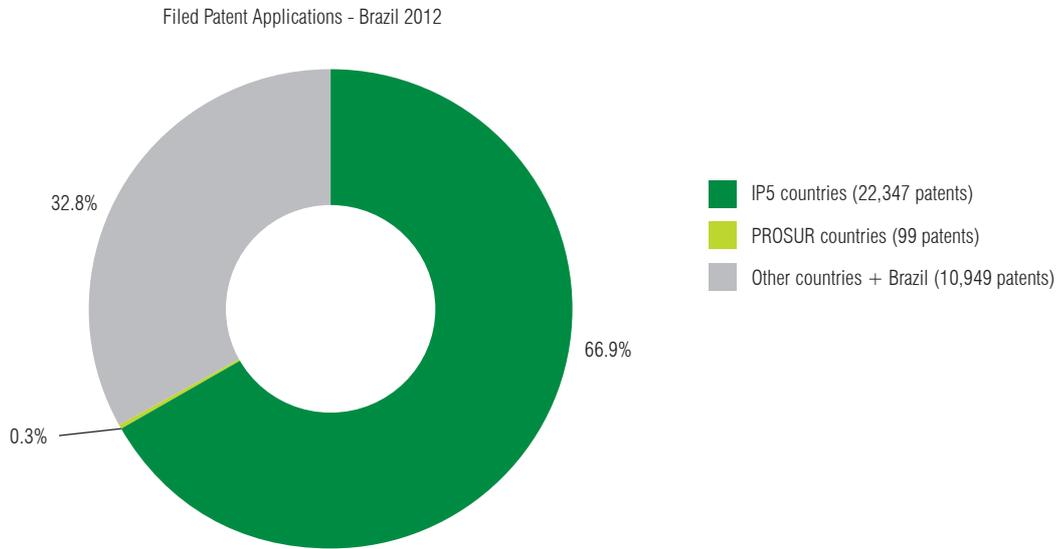
*5 - INPI Statistical Data (base year 2013).

Schematic drawing - CNI @ 2014.

As regards PROSUR countries, it should be noted that the Industrial Property Office of Colombia (SIC) entered into PPH-type agreements with the United States and Spain (Table 3).

As part of a leadership strategy of Brazil in South America for protecting IP rights, its participation in the PROSUR system is essential, since the INPI is the largest intellectual property office on the South American continent. However, as shown in Figure 4, given the high technology and trade flows between Brazil and IP5 countries, it is also fundamental to establish PPH-type cooperation agreements.

GRAPH 4 – TECHNOLOGY AND TRADE FLOW BETWEEN BRAZIL AND PROSUR AND IP5 COUNTRIES

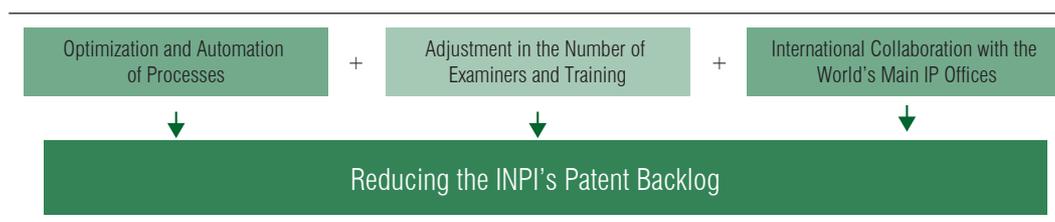


<p>Sources and Notes: 2012 - INPI Statistics (base year 2013) SECEX Statistics (base year 2012) Data analysis and schematic drawing - CNI @ 2014</p>	<p>IP5 countries: USA + Japan + EU + South Korea + China</p> <p>PROSUR countries: Argentina + Chile + Colombia + Ecuador + Paraguay + Peru + Uruguay - Suriname* (* only collaborates in the PROSUR system in trademark examinations)</p>
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The data presented above show that international collaboration, particularly of the PPH-type, contributes to reducing patent backlogs by increasing the productivity of examiners, meaning that it should be a priority for Brazil to adopt it (Tables 2 and 3 and Graph 4). Industry believes

that three basic conditions must be met for the INPI to reduce its patent backlog, involving: processes, human resources and international cooperation, as illustrated in Figure 6.

FIGURE 6 – BASIC CONDITIONS FOR REDUCING THE INPI'S PATENT BACKLOG



Proposal:

- Entering into PPH (Patent Prosecution Highway)-type technical cooperation agreements with major international offices to expedite the examination of patent applications and establishing other regional collaboration mechanisms such as the PROSUR system without loss of autonomy for the INPI in its final decisions on granting such rights.

5.4 Ensuring legal and economic certainty in the field of intellectual property

It is in the interest of Brazilian industry to appear on the map of global chains as a generator and consumer of knowledge and advanced technologies. Brazil's image should be one of a country capable of offering suitable conditions for accepting investments from the world's most innovative business segments and making them thrive. These conditions particularly include certainty to appropriate the economic returns on innovation efforts.

Intellectual property is institutionalized as an integrated system that generates benefits for society. This system is founded on the need to foster intellectual work, which is key for the economic and social development strategy of any nation. It is intended to protect, in a fair and balanced fashion, the economic value of the results of the innovative and creative activities of each individual or organized group, turning them into marketable (intangible) assets. The system relies on market mechanisms to expand the supply of new knowledge, technologies and cultural goods and promote access to them. When there is social perception of legal certainty in the appropriation of the economic value of innovations and creations, the propensity to invest in these activities increases.

Proposals:

- Speeding up the process of granting or denying patent applications for companies to enjoy incentives and/or authorizations associated with patent rights (pharmaceuticals, tax incentives for innovation, etc.);
- Issuing a decree to regulate the registration of rights and IP contracts by the INPI, ensuring the confidentiality of information contained therein;
- Updating provisions of the income tax law regarding tax deductibility of payments for IP licensing and the provision or licensing of technology, know-how or technical assistance.

5.5 Improving the Industrial Property Law and Copyright Law

Brazil is a country in economic transition in which innovation has become an increasingly important element for competitiveness. It is urgently necessary to upgrade the Intellectual Property System to align it with current and future development strategies and with the best practices identified by the OECD being used in the world's most advanced economies.

Because it constitutes a prerequisite for private investment in RD&I, intellectual property is the first of ten priority topics included in the Business Mobilization for Innovation Agenda (MEI) launched in 2011 and led by the National Confederation of Industry (CNI).

Proposals:

- Allowing for inventions related to living organisms and genetically modified organisms (GMOs) to be protected by patents;
- Allowing patents for technologies implemented through business models, mathematical methods and computer programs;

- Lending greater clarity to rights on inventions in the virtual world, drawing a clear distinction between them and scientific discoveries in the Intellectual Property Law;
- Consolidating the possibility of registering marks that can be perceived by any of the senses and not only by sight;
- Relying on the international legislative experience and jurisprudence to eliminate lingering uncertainties in the protection of industrial designs, which are particularly prevalent in disputes between automakers and small producers of auto parts;
- Eliminating or simplifying the registration of technology transfer agreements, minimizing the interference of the State, respecting the wishes of the parties and not imposing any kind of barriers on entering into such agreements, which are essential for the development of innovation in our country;
- Creating a specific legal framework for protecting trade secrets to complement the current legislation with the aim of providing greater clarity and certainty for organizations that adopt that strategy;
- Modernizing the Copyright Law, adjusting it to the reality of the knowledge economy era in the digital environment and the Internet, including by meeting specific advertising production needs of companies in a competitive environment.

5.6 Improving the regulatory framework and stimulating RD&I with Brazilian biodiversity

The bioeconomy affords a unique opportunity to Brazil. It is a new frontier for economic development resulting from the possibilities brought by the biological sciences that can generate jobs and income by creating and applying new knowledge and technologies and also through the sustainable use of Brazil's biodiversity.

The regulatory framework for biodiversity in Brazil discourages investment and needs to be modernized in the light of international standards to simplify access to biodiversity and allow for inventions developed from using it to be patented, as this possibility is very limited today (Table 4). Given the challenge of promoting the development of the biotechnology sector in Brazil, the time has come to change this framework with a view to stimulating the sustainable use of our biodiversity, so that the country can become competitive in this area.

TABLE 4 – COMPARISON BETWEEN PATENTABILITY CRITERIA APPLIED TO BIOTECHNOLOGICAL PRODUCTS AND PROCESSES IN DIFFERENT COUNTRIES

Patentable Biotechnological Subject Matter	BR	AU	CH	EP	US	IN	JP
Discovery							
Material isolated from nature							
Isolated microorganism							
Transgenic organism							
Human cell							
Animal (non-human) cell							
Animal variety							
Transgenic animal							
Not essentially biological animal (non-human) production process							
Plant cell							
Transgenic plant							
Plant variety							
Not essentially biological plant production process							
Therapeutic method							

Source and Notes:

Estudo Comparativo dos Critérios de Patenteabilidade para Invenções Biotecnológicas em Diferentes Países, INPI, 2007.

BR-Brazil; AU-Australia; CH-China; EP-Europe; US-United States; IN-India and JP-Japan.

Schematic drawing - CNI @ 2014.

Proposals:

- Encouraging the use of Brazilian biodiversity to ensure the feasibility of investments in research, development and innovation (RD&I) in the academic and business environment;
- Establishing a new legal framework to ensure access to genetic resources and associated traditional knowledge, meeting the objectives of stimulating innovation and removing the barriers to scientific and technological development imposed by the current legislation. The scope of the new legislation should be restricted to native species in Brazil and should not encompass naturalized or exotic domesticated species;
- Ensuring that the new legal framework will not require prior authorization for promoting an enabling environment for regularizing ongoing activities, avoiding the application of fines on users, bureaucratic hurdles and considerable delays in research and

development deadlines. A simple online system should be adopted for registering accesses and subsequent annual notifications of developed products;

- Establishing transparent and swift mechanisms within the new regulatory framework for sharing benefits from using genetic resources and associated traditional knowledge that do not to inhibit business activity at the domestic and international levels, considering the Convention on Biological Diversity (CBD) and the Nagoya Protocol. Avoiding high percentages of benefit sharing, as indicated in the latest government proposal of 1%, which are economically unfeasible, and allowing benefits to be freely and directly negotiated with communities that conserve biodiversity, including through projects, without the participation of the Federal Administration in contracts in this case;
- Reforming the model and practices of the Genetic Heritage Council (CGEN) under the new legal framework with the participation of the business sector and deciding on outstanding issues with greater speed, technical consistency and legal certainty;
- Allowing for inventions related to living organisms and genetically modified organisms (GMOs) to be protected by patents, as indicated in item 5.5;
- Reviewing Law No. 9,456/97 with the aim of expanding the scope of protection for cultivars (which are important for agribusiness) to cover any plant genre and species in a cumulative, distinct, homogeneous and stable fashion, and also of expanding the scope of plant breeders' rights, restricting the unauthorized marketing of protected cultivars and regulating exceptions to this right more precisely.

5.7 Combating crimes against intellectual property

Piracy and, more generally, violations of intellectual property distort the functioning of economies. Piracy jeopardizes tax revenues, compromises the functioning of companies and their establishment in the formal sector of the economy, undermines consumer rights and discourages innovation and artistic, literary and scientific creation in the country. This practice has been a major obstacle to Brazil's international integration as it discourages foreign investment and exports. It is therefore important to combat it tenaciously.

Proposals:

- Addressing piracy through all legal means, including through greater international cooperation, particularly with countries of origin or transit of illegal goods;

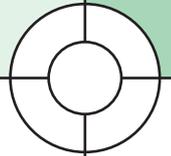
- Expanding public actions to prevent and combat piracy and offenses against intellectual property with the aim of promoting institutional certainty, curbing unfair competition and protecting investments;
- Preparing and strengthening institutions directly involved in combating piracy and eventually creating specialized forces to repress it, as is done in some regulatory agencies;
- Strengthening and supporting the actions of the National Council Against Piracy of the Ministry of Justice (CNCP-MJ), through properly structured and trained repression bodies. The INPI can and should be equipped to support the CNCP and the competent law enforcement agencies technically and operationally;
- Strengthening and modernizing the judiciary and its administrative bodies to ensure due diligence and legal certainty in defending intellectual property rights in Brazil;
- Reforming the Brazilian Penal Code in its provisions on Crimes against Immaterial Property, which include violations of copyright and related rights, taking into account the rapid technological advancement taking place worldwide and new forms of reproduction of protected works, as illegal reproductions can cause immeasurable damage to the Brazilian creative industry, authors and interpreters.

5.8 Deepening Brazil's international integration in the field of intellectual property

It is necessary to deepen Brazil's integration into the international environment, contributing proactively in discussions and proposals on the Intellectual Property System in the world and assuming modern positions consistent with its stage of development, with the aim of favoring the business environment. Because of its economic importance, Brazil should assume a leading position in relation to the topic in South America. Accession to international treaties and agreements in the field of trademarks, industrial designs and geographical indications and the establishment of technical collaboration agreements between the INPI and other IP offices worldwide contribute to further Brazil's integration into the global intellectual property system, besides speeding up the examination of patent applications without affecting its sovereignty over the granting of rights.

Proposals:

- Deepening Brazil's integration with the aim of expanding benefits for companies that adhere to international IP treaties;
- Acceding to the Madrid Protocol, which facilitates the filing of trademark applications with industrial property offices in signatory countries simultaneously;
- Acceding to the Hague Agreement to facilitate the filing of industrial design applications with industrial property offices in signatory countries simultaneously;
- Acceding to the Singapore Treaty, which standardizes procedural aspects of trademark registration and licensing in signatory countries;
- Acceding to the Lisbon Agreement, an international registration system that makes it possible to protect a designation of origin (DO), a specific type of geographical indication (GI), in all Member States simultaneously;
- Participating actively in international IP forums, supporting positions that may favor Brazil's international competitiveness, in line with the innovation and development agenda of government and industry, particularly in those of the World Intellectual Property Organization (WIPO) and of the World Trade Organization (WTO) on the matter.



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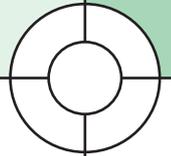
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