

FEDERAL INSTITUTES OF THE NORTHEAST AND THE USE OF THE PRIORITY PROCESS OF PATENTS FOR ICTs

INSTITUTOS FEDERAIS DO NORDESTE E O USO DO TRÂMITE PRIORITÁRIO DE PATENTES PARA ICTS LOS INSTITUTOS FEDERALES DEL NORDESTE Y EL USO DEL PROCESO DE PRIORIDAD DE PATENTES PARA LAS TICS

Ricardo Maia do Amaral

Master in Intellectual Property and Technology Transfer for Innovation (ProfNIT/IFPB), Specialist in Public Accounting and Fiscal Responsibility (UNINTER) and Bachelor in Accounting Sciences (UEPB). Administrative technical server of the IFPB campus Campina Grande. ricardomaia@ifpb.edu.br.

0000-0002-8094-2342

João Ricardo Freire de Melo

PhD in Education (UFRN), Master in Teaching Natural Sciences and Mathematics (UFRN), specialist in Systems and Computing (UFRN) and Graduated in Informatics (CEFET-RN). Teacher of basic, technical and technological education at the Federal Institute of Paraíba (IFPB) and teacher of the Graduate Program in Intellectual Property and Technology Transfer for Innovation – ProfNIT (IFPB). joao.melo@ifpb.edu.br.

0000-0001-8407-1188

Received: 04.16.2023. Accepted: 06.19.2023. Published: 08.02.2023

ABSTRACT:

The national system for exploiting industrial property, whose protection works through the granting of registrations and patents, is relevant for the country's technological development. In the case of patents, the large increase in requests received by industrial property offices generates what has been called a backlog. The objective of this work was to verify the degree of adhesion to the program of priority processing of patent processes for depositors of Scientific and Technological Institutions - ICTs, among the eleven Federal Institutes of Education in the Northeast. However, it is perceived that adherence to the priority procedure for ICT patents is still something little explored.

KEYWORDS: Patents; INPI; Federal institutes; Priority procedure.

Introduction

The national system of exploitation of industrial property, whose protection works by granting patents and registrations, is relevant to the technological development of the country. It is an integral part of the intellectual property protection system and consists of a set of legal instruments, not only national but also international, aimed at the protection of intangible assets of the industry, in order to grant a temporary privilege to the authors of inventions, utility models, industrial designs, geographical indications, trademarks, among others, by ensuring exclusivity in the economic exploitation of protected objects. This protectionist system favors investment in research and development in the industry sector, by enabling the financial return to those who took the risk of innovation.

When we talk specifically about patent concessions, we mean a type of intellectual property made to protect inventive solutions to known technical problems. These solutions generate objects of recurrent analysis and, in turn, involve subjects such as technology transfer, university-company cooperation, economic and social development, creativity and inventiveness. The importance given to the patent generates



a high number of applications for this asset in intellectual property offices around the world. Thus, there is a need for the examinations required to make these concessions to be performed efficiently.

Patent Backlog

The Oxford dictionary (2018), defines the expression "backlog" treating it as: "A Huge backlog of work", translating: "A lot of accumulated work". Definition similar to that of Barbosa (2013), which considers backlog, in the field of patents, as the level of applications that, due to the lack of action of the examiner, are pending for longer than the intended duration. It is observed that the term backlog is related to the accumulation of work in a certain time interval. Being considered, therefore, for the protection of the law, a hindrance that delays the granting of patents in the country. It can be understood as the amount of pending patent applications for duration longer than desired, per examiner (Guedes and Sartori, 2017).

According to 2019 data from Five IP Offices - IP5, an entity that brings together the five main intellectual property offices in the world, approximately 4.7 million applications were pending (pending examination or pending examination) in their respective offices (IP5, 2019).

In Brazil, the fundamental role of INPI for society should be emphasized, because its decisions can directly impact the social and economic scenarios, and that, in this context, the backlog is considered a serious problem. Because it is an obstacle to the patent system in Brazil, Santos et al. (2015), Garcez and Moreira (2017) share the same vision when they find that the backlog has been a worrying factor for users, since it potentiates legal uncertainty and discourages investments, obstacles to technological innovation and economic development.

As an example, even with an effort to combat the backlog, the average term for final decision of a patent application in 2017 was approximately 10.8 years, already in 2018 there is a reduction of the average decision time to 10.4 years (INPI, 2017/2018).

It is observed, however, that the effects of the backlog are ambiguous, presenting positive and negative views about the subject. Excessive dilation of the examination time favors the depositor who does not have all the assets necessary for the commercialization of the invention or is in search of commercial partners. The backlog is beneficial when the technology subject of the patent is dependent on the subsequent results in Research and Development (R&D).

On the other hand, the negative effects caused by the backlog affect competitors and consumers, since the delay in the evaluation of the patent application impairs the



mobilization of competitive resources for the development of alternative technologies, to those required or the reproduction of the technology required by the uncertainty generated as to the validity and scope of protection, if obtained from the patent office (De Abreu, 2017).

To solve the problem of patent backlogs, there is a tendency for national offices to work together to try to reduce the amount of similar work repetition that occurs between offices for these patent applications. Other key points for increasing the productivity of the examinations required were the simplification of the examination procedures, a new basic plan of preliminary requirements, the adoption of the management program "modality by task with no point control"

Priority Procedure of Proceedings

Also, as part of the plan to combat the patent backlog, the INPI has been improving the priority process that involves the protection of industrial property rights by the use of patents. This type of procedure enables priority examinations, processes in which patent applications have a reduced concession time, with the aim of accelerating not only the examinations but the entire procedure. Admission or not to the priority procedure does not interfere in the patent law.

In the perspective of progress in relation to the processes of priority procedures, the INPI has been allowing the priority processing of patent applications belonging to ICTs, as defined in item V, article 2, of Law 13,243, of January 11, 2016 (BRAZIL, 2016). Before as a pilot project and today as a permanent service of the municipality, the initiative facilitates the insertion of innovative products and services developed by ICTs and mitigates the negative effects of the INPI's delay in deciding patent applications for this specific group of depositors.

In order to minimize the cost imposed on the actors of the innovation system, the INPI has been seeking alternatives to reduce this ever increasing demand for the patent procedure. In the solution initiatives presented by the agency, we analyze the priority procedure for ICTs. These institutions have a leading role in the National Innovation System. They represent an actor within the innovation system, with the primary function of building promising links of cooperation between companies, government and academia, acquiring a growing relevance in the social demands of the most diverse areas of knowledge.

However, there is still a very small portion of processes linked to ICTs. One fact that may explain this observation is that the pilot project of patents belonging to micro and/or small companies dates from 2006, while the pilot project patents ICTs were



standardized in 2016. There is, possibly, within the ICTs or even the Technological Innovation Centers - nits, a lack of knowledge about the possibility of resorting to this benefit or even a lack of familiarity with the nature of the process.

The objective of this research is to verify the degree of adherence to the program of priority processing of patent processes for ICT applicants, among the eleven Federal Institutes of Education, installed in the Northeast region of Brazil.

To achieve the objective proposed in this research, the methodology adopted is based on the assumptions of a quali-quantitative approach, since it will include quantitative data about the numbers of patent applications, backlogs and also the qualitative aspects related to the discussion about the requests for priority procedures of these patents arising from ICTs, of the 11 (eleven) Federal Institutes of the Northeast.

For this, taking into account the patent applications filed at the INPI between January 1st, 2009 to October 25th, 2021.

Processing time of IFs-NE deposits

The IFs-Ne are examples of entities that are affected by the delay on the part of the INPI in making the final decisions, either granting the issuance of patent letters or rejecting them, as occurs in most cases of ifs-Ne.

Among the 11 IFs-Ne, it is noticed that five of them: IFMA, IFPI, IFRN, IFAL and the IFS, in the analyzed period, had no letters-patents issued. This fact is important because these ifs together made a total of 153 patent applications, which represents 34.54% of all deposits made by ifs-Ne.

Among these 5 (five) institutes it is noticed that all, without exception, are affected by the delay in making a definitive decision by the INPI, a fact, which for example can weaken its technology transfer process, since, in this case, one does not actually have a right (letter-patent), but a "perspective of law" on a future protection through the issuance of a letter-patent.

There are emblematic cases such as filing no PI 0903171-5, made by the IFMA on 26/05/2009, which only had a definitive decision by the INPI, in this case by its filing, only on 09/03/2021, that is, 11 years and nine months after its filing.

Other facts to be highlighted are, first in relation to IFAL that only started its filing processes at INPI, only in 2017. In relation to the other ifs-Ne, IFAL was the institute that most postponed the process of protection of its inventions at the INPI.

On the other hand, IFS is the only one of the analyzed institutes that did not file patent applications at INPI between 21.11.2018 and 22.11.2022, so it is already 4 years that IFS has not made any patent filing.



The federal institutes of Ceará, Paraíba, Pernambuco, Sertão Pernambucano, Bahia and Baiano, presented in the same period, 290 patent applications, which represents 65.46% of all deposits of ifs-Ne. Of these 240 deposits, 26 had their letters-patents issued, 23 through the normal procedure and 3 (three) through the priority procedure model for ICT, thus, only 8.96% of the total deposits had letter-patent issuance.

When we verified the time for shipment, we identified that within the normal procedure, such expeditions occurred between 4 (four) years and ten months, up to 9 (nine) years and four months, so there is also, in these cases, an excessive delay on the part of the INPI for decision making. And IFBA as the only institute to use the priority model in relation to the other ifs-Ne, already in relation to the time for dispatch of letters patent in the priority model, they take on average between 2 (two) and eleven months.

The estimated cost of a patent in the normal INPI procedure

The costs of maintaining a patent application in Brazil, depend on the various fees to be paid during the time that the patent applications are active in the INPI, are filing fees, requirements, requirements and especially the fees corresponding to the payments of patent annuities, this yes, the highest cost to be considered. For research institutions, as is the case of ifs-Ne, this value is considerable, mainly due to the recurring budget cuts of these institutions, which considerably reduces the values that each institution reserves annually to protect its intellectual assets, such as patents.

Even so, for this type of depositor there is the possibility of reducing the costs of patenting their inventions. ICTs have the possibility, as long as they request, to reduce these costs for almost all services provided by the INPI, by up to 60%, as established by INPI Resolution PR n. 251/2019, (INPI, 2019).

It is important for ifs-Ne, the analysis to which is bearable the costs that annually their patent applications generate to be kept active with the INPI, whether the costs, the use of the normal procedure, or through the priority procedure model for ICTs.

The costs for shipping and maintenance of a patent letter are basically formed by the set of fees corresponding to the filing of the patent application, the application for examination, the payment of annuities and the issuance of a patent letter. In other cases also, for preliminary opinions, compliance with requirements, manifestations about the invention, restoration or request desarquivamento, (Ziomkowski, Gonçalves, Matei, 2021) and Garcez Júnior (2015).

The average total cost with a patent application for invention in 2022 at the INPI would be approximately R\$ 24,725.00 (twenty-four thousand, seven hundred and twenty-five reais). When applying the 60% discount established by Resolution INPI PR n²



251/2019 the mandatory, optional and estimated costs would be on average R\$ 9,890.00 (nine thousand, eight hundred and ninety reais).

These values can be reduced when there are no occurrences of optional and estimated services for applications that do not use the priority procedure in the modality patents ICTs. These amounts will be reduced to R\$ 23,460.00 (twenty-three thousand, four hundred and sixty reais), and to R\$ 9,384.00 (nine thousand, three hundred and eighty-four reais) for the requests reached by INPI PR Resolution n. 251/2019, therefore, occurring a reduction of 5.512% lower when considering all mandatory, optional and estimated costs.

Annuity of invention patent application

During the entire process of the patent application until the issuance of the patent letter, the holder of the application will make mandatory or optional the payment of various fees. Among the mandatory fees is the consideration for annuities of the application, such fees begin from the beginning of the third year, and extend until the end of the patent term, in Brazil of 20 years for invention patent and 15 years for utility model patent. According to art. 86 of the LPI, the non-payment of annuities will result in the filing of the application or the extinction of the patent, (BRAZIL, 1996).

The Basic Manual for Patent Protection of Inventions, Utility Models and Certificates of Addition, in its last version of July 2021, defines annuity as:

Annual remuneration to which patent applications and certificates of addition of invention are subject, as well as patents and certificates of addition of invention already granted. The objectives are to ensure the progress of the patent application or certificate of addition of invention until these are granted, that is, throughout the process period and ensure the maintenance of the rights conferred after the granting of the patent or the certificate of addition of invention (INPI, 2021).

Such annuities must be paid from the beginning of the 3rd year as table 1 counted after the filing of the patent.

Annuity of patent applications for invention before shipment of the letter-pate							
Code	Service	Price (in Brazilian real)	Price with discount				

Table 1 Cost of annuities for maintaining a patent at the INPI



220	within the ordinary time limit	R\$ 295,00	R\$ 118,00						
221	overtime	R\$ 590,00	R\$ 236,00						
Annuity of patent applications for invention within the ordinary period after the issuance of the patent letter									
Code	Service	Price (in Brazilian real)	Price with discount						
222	from 3rd to 6th grade	R\$ 780,00	R\$ 312,00						
224	from 7th grade to 10th grade	R\$ 1.220,00	R\$ 488,00						
226	from 11th grade to 15th grade	R\$ 1.645,00	R\$ 658,00						
228	from 16th grade onwards	R\$ 2.005,00	R\$ 802,00						
Annuity of patent applications for invention within the extraordinary period following the issuance of the patent letter									
Code	Service	Price (in Brazilian real)	Price with discount						
223	from 3rd to 6th grade	R\$ 1.565,00	R\$ 626,00						
225	from 7th grade to 10th grade	R\$ 2.440,00	R\$ 976,00						
227	from 11th grade to 15th grade	R\$ 3.295,00	R\$ 1.318,00						
229	from 16th grade onwards	R\$ 4.005,00	R\$ 1.602,00						

Source: Elaborated by the author from INPI data (2022).

The estimated cost of a patent in the INPI via priority procedure for ICTs

According to the law n° 10.973, of December 2, 2004, (BRAZIL, 2004) which provides for incentives for innovation and scientific and technological research in the productive environment, amended by law n° 13.243, of 2016 and Decree n° 9.841, of 2019, brings in its art. Paragraph V, the definition of ICT as:

Scientific, Technological and Innovation Institution (ICT): body or entity of the direct or indirect public administration or legal entity of private non-profit law legally constituted under Brazilian laws, with headquarters and forum in the country, which includes in its institutional mission or its social or statutory objective basic or applied research of a scientific or technological nature or the development of new products, services or processes.

Law 11,892, of December 29, 2008 (BRAZIL, 2008), which establishes the Federal Network of Professional, Scientific and Technological Education, and creates the Federal Institutes of Education, Science and Technology, defines in its art. 6th and item VIII, which the Federal Institutes have for purposes and characteristics "to carry out and stimulate applied research, cultural production, entrepreneurship, cooperativism and scientific and technological development".



Therefore, considering that all ifs, by their purpose are contemplated by INPI PR Resolution n. 251, of October 2, 2019, in this way, will have a discount with a reduction of up to 60% in the values of remuneration.

As previously mentioned, such discount are not applicable in cases of: request for return of deadline for impediment of the interested party; certificate of acts related to the processes; certificate of search by holder; shipment of second form of letter-patent or certificate of addition of invention; official copy for the purpose of claiming unionist priority; simple reprographic copy; re-establishment of rights for entry into the national phase of the PCT, INPI (2019).

The average total cost with an application for an invention patent at the INPI would be approximately R\$ 11,832.00 (eleven thousand, eight hundred and thirty-two reais) when applying the 60% discount established by Resolution INPI PR n² 251/2019 and considering all mandatory, optional and estimated costs.

These values can be reduced when there are no occurrences of optional and estimated services for applications that use the priority procedure in the modality patents ICTs, a fact that does not occur very often. Such amounts can be reduced to R\$ 11,326.00 (eleven thousand, three hundred and twenty six reais), therefore, a reduction of 4.28% is lower when considering all mandatory, optional and estimated costs.

When the comparison of costs is made between those of an invention patent application, considering that an ICT does not perform the option for the parity procedure, its costs on average could be up to R\$ 9,890,000 (nine thousand, eight hundred and nine reais) and R\$ up to R\$ 11,832.00 (eleven thousand, eight hundred and thirty-two reais) when using of the priority procedure, thus, the cost of an application for a letter of patent via priority procedure for ICTs would be R \$ 1,942.00 (one thousand, nine hundred and forty-two reais), the highest in relation to the normal procedure.

The costs of IFPB and IFBA invention patent applications

The 11 (eleven) federal institutes of the Northeast Region, during the period included in the research, that is, between January 1, 2019 and October 25, 2021, filed 443 (four hundred and forty-three) patent applications at the INPI. Of these, only 26 (twenty) had their letters-patents issued, this represents only 5.87% of all deposits made in the period. The ifs-Ne who obtained their letters-patents were: IFCE with 01 (one), IFPB with 03 (three), IFPE with 01 (one), IF Sertão-PE with 05 (five), IFBA with 12 (twelve) and IF Baiano with 04 (four).



The Federal Institute of Paraíba is the largest depositor in the entire Northeast Region among the 11 ifs with 81 (eighty one) deposits made, so 18.28% of all deposits in the Northeast region during the period surveyed are from IFPB.

The Federal Institute of Bahia in the same period, made 46 (forty-six) deposits, which represents 10.38%, of the total of the region, but it is important to highlight that of the 46 (forty-six) deposits, 12 (twelve) had their letters-patents issued, representing 26.08% a significant percentage in relation to other ifs in the region. Among these requests, 09 (nine) had the request for priority procedure admitted by the INPI, and of these, 3 (three) have already had their letters-patents issued.

For these reasons, the choice of IFPB and IFBA to make a comparison in relation to the costs of their patent applications.

The Federal Institute of Paraíba as stated above, until the date of the research had 81 (eighty-one) patent applications for invention and utility model, as holder or coauthor of the invention. Of these 64 (sixty-four) have the IFPB as holder and responsible for maintaining the maintenance of these requests through the payment of the remuneration of the services provided by the INPI.

The total costs for maintaining these requests in the INPI until 22.09.2022 were R\$ 36,027.00 (thirty-six thousand, and twenty-seven reais), even with these values applied, comprising the period of October 10, 2013 (date of the first patent application registered at INPI by IFPB), 27.09.2021 (last patent application registered by IFPB at INPI) only two patent letters were issued according to Table 1, and having the IFPB as the holder and responsible for maintaining the maintenance of these requests through the payment of the services provided by the INPI.

The first one had its request made at the INPI on 10.10.2013 and its patent letter was only issued on 29.03.2022, that is, 08 years and 05 months (3,092 days) for the issuance of the patent letter. The second application is dated 27.05.2014 and his patent letter was only issued on 09.07.2019, 07 years and 10 months (2,862 days) for the shipment of the patent letter.

The total costs to be presented below, take into account the costs incurred for example: Filing the application, application for examination, compliance with requirement, manifestation of invention in the first instance, letter-patent, annuities, among others. And they were listed as paid in the INPI database until September 22, 2022.

 Table 1
 Total cost of letters issued with IFPB as owner and responsible for maintaining the maintenance



Date of Deposit	Amount applied	Order Number	Client		
27/05/2014	R\$ 1.760,00	BR 20 2014 013581 8	IFPB		
10/10/2013	R\$ 2.089,00	BR 10 2013 027258 2	IFPB		

Source: Elaborated by the author from the data recovered in the INPI database (2022).

In the same period analyzed the IFPB had another letter-patent issued with the number of application BR 10 2014 028961 5 B1, but this in co-authorship with the Federal University of Rio Grande do Norte - UFRN and being this university responsible for maintaining the maintenance of these requests through the payments of the services provided by the INPI.

The Federal Institute of Bahia, in the same period of the research presented 46 patent applications for invention and utility models, with the holder and the co-author of the applications. Of these 42, IFBA is the owner and responsible for maintaining the maintenance of these requests through the payment of the remuneration of the services provided by the INPI.

The total costs for maintaining these applications totaled until 22.09.2022 the amount of R\$ 42,380.00 (forty-two thousand, three hundred and eighty reais), with these values applied from 11.09.2009 to 29.07.2021, with IFBA 12 letters-patents as shown in table 2, sent as owner and responsible for maintaining the maintenance of these requests through the payments of the services provided by the INPI.

The first one had its request made at the INPI on 24.12.2010 and its patent letter was only issued on 06.03.2018, that is, 07 years and 02 months (2.629 days) for the issuance of the patent letter. The last application is dated 30.07.2020 and his patent letter was issued on 08.09.2021, 01 year and 01 month (405 days) for the issuance of the patent letter, observation to be made is that this used the priority procedure for ICTs.

Table 2	Total	cost	of	letters	issued	with	IFBA	as	owner	and	responsible	for	mainta	iining
the mai	Intena	nce												

Date of Deposit	Amount applied	Order Number	Client		
30/07/2020	R\$ 1.174,00	BR 10 2020 015506 7	IFBA		
24/12/2010	R\$ 2.083,00	MU 9002752-3 Y1	IFBA		

Source: Elaborated by the author from the data recovered in the INPI database (2022).

On the other hand, when comparing the data of the requests that are in the stages of priority processing for ICTs and the requests already granted, the IFPB did not apply resources for the dispatch with the (code 28.30) and the costs with the maintenance of



the two requests that had letter-patent issued (code 16.1) were R\$ 3,849.00 (three thousand, eight hundred and forty-nine reais), that is, 10.68% of all the value applied until 22.09.2022.

The IFBA with the priority procedure for ICTs (code 28.30), the costs are R\$ 6,806.00 (six thousand, eight hundred and six reais) 16.05%, and with patents that have already been issued by the INPI (code 16.1) the cost until 22.09.2022 is R\$ 20,228.00 (twenty thousand, two hundred and twenty-eight reais), that is, 47.73% of all the resources applied by IFBA for the maintenance of these requests through the payments of the services provided by the INPI.

It is observed that IFPB and IFBA, are working in opposite ways, because the IFPB has its large part of the applications still in the initial stage, while the IFBA has its applications in other stages, mainly of requests in priority process, and with letters-patents already issued. An important observation should be made, of the 12 letters-patents of IFBA, 03 (three) were obtained after the request of the priority procedure for ICTs: BR 10 2020 015506 7 B1; BR 10 2019 000139 9; BR 10 2016 012472 7.

Internal Innovation Ecosystems of ifs NIT's in the Northeast region

Innovation ecosystem comes from the idea of a community of actors that live in the same environment, and that carry out constant exchanges of knowledge, including in the public sector, when they seek through the interaction between these actors, the search for new solutions to solve the problems of our daily lives (GOMES et al, 2018).

Inserted within this ecosystem of innovation, the federal institutes that were created from the law n^o 11,892, of December 29, 2008, become important actors of this system. Below we will demonstrate how each of the ifs-Ne are internally structured, as well as, in relation to the internal normative instruments that govern their innovation systems, information taken from official documents and institutional websites of each of them.

To better understand how institutes deal with the priority procedure for ICTs, we will present the results of the questionnaire that was applied to IFs-Ne on October 14, 2021, that dealt with their adherence to the model of priority processing of patent processes for INPI ICTs depositors.

Such information was obtained from answers from the institutes provided through the integrated platform of Ouvidoria and access to information "fala.br" of the Comptroller General of the Union.

The answers presented by the 11 ifs-Ne, allow the identification of some points, for example, even with the possibility of adherence to the priority procedure model by



the ICTs, in our case more specifically the ifs-NeNe, and unlike what the institutes presented in their answers, of the four institutes that confirmed the use of the priority model, there is only in fact, the accession of IFBA. The other 10 institutes still make their patent filings through the normal procedure with the INPI.

There are no normative documents of ifs-Ne, such as: regulations, rules, ordinance, resolution, or any other document that can guide and/ or encourage the adherence of institutes to the model of priority procedure, fact that may be directly related to the lack of manpower that can carry out the activities inherent in the protection and transfer of ifs technologies. For the most part, they do not have enough staff to perform the most diverse activities that are relevant to nits.

And finally, in their responses most institutes recognize the advantages of using the priority model for ICTs, mainly by the effective reduction of time for analysis and decision making by the INPI for patent applications filed by these ICTs.

Final Considerations

As verified in this work, the average waiting time for analysis and issuance of patents in Brazil is still high. This fact led the examination of patents in Brazil to be among one of the most time-consuming of all WTO member countries. While awaiting the proper analyzes, inventors do not have the guarantee of protection and, consequently, of exclusive use of the proposed technology. For the national innovation system, it makes the country unattractive and uninteresting to foreign and domestic investors.

The ifs of the Northeast also end up being affected by the excessive delay that these patent applications are "stopped" at the INPI. We have cases of applications waiting for a decision more than 12 (twelve) years, as is the case of an IFBA request. In relation to the time of the expedition of the letters-patent the time is also time consuming, mostly with more than 7 (seven) years, reaching 9 (nine) years and 4 (four) months.

The priority procedure of patents must be strategically faced by nits in ifs-Ne, because it is possible to minimize the backlog problem in the national innovation system. This situation generates, for its various actors of the system, a huge legal uncertainty and consequently discouraging investments in R&D in the country.

Therefore, it is clear the advantages that the adherence to the priority procedure of patents for ICTs can bring to those who adhere to this model, such as the reduced time for a definitive decision-making by the INPI, as well as the cost of the priority procedure for patents of ICTs that is not much different from the normal cost at INPI.



References

Abreu, J. C. D. (2017). *Technological prospection applied in the optimization of patent concession in Brazil: case study in immunosuppressive drugs patents.* Thesis (PhD in Public Policy, Strategies and Development) - Graduate Program in Public Policy, Strategies and Development of the Institute of Economics of the Federal University of Rio de Janeiro, Rio de Janeiro. UFRJ Institutional Repository. https://www.ie.ufrj.br/images/IE/PPED/Teses/2017/Jussana%20Cristina%20de%20 Abreu%20.pdf

 Barbosa, D. B. (2013). The inexplicable public policy behind the single paragraph of art.
 40 of the Industrial Property Law. In Barbosa, Denis Borges, *Essays and studies of Intellectual Property*. Rio de Janeiro: Lumen Juris.

https://www.dbba.com.br/wp-content/uploads/a-inexplicvel-poltica-pbli ca-portrs-do-pargrafo-nico-do-art.-40-pargrafo-nico-do-cpi.96-agosto-de-2013.pdf

- Brazil, L. (2004). *Law n° 10.973, December 2nd, 2004*. Provides incentives for innovation and scientific and technological research in the productive environment and provides other measures, Official Diary of the Union. https://www.planalto.gov.br/ccivil_03/_Ato2004-2006/2004/Lei/L10.973.ht m
- Brazil. L. (2008). *Law n° 11.892, December 29th 2008.* Establishes the Federal Network of Professional, Scientific and Technological Education, creates the Federal Institutes of Education, Science and Technology, and provides other measures. https://www.planalto.gov.br/ccivil_03/_ato2007-2010/2008/lei/l11892.ht m
- Brazil. L. (2016). *Law n° 13.243, January 11th 2016.* It provides incentives for scientific development, research, scientific and technological training and innovation. https://www.planalto.gov.br/ccivil_03/_Ato2015-2018/2016/Lei/L13243.htm
- Garcez Júnior, S. S. (2015). The evolution of patent applications pending review at INPI: building alternatives for depositor protection and blacklog reduction. 2015. 109 p. Dissertation (Master in Others) - Federal University of Sergipe. UFS Institutional Repository.

https://ri.ufs.br/bitstream/riufs/3410/1/SILVIO_SOBRAL_GARCEZ_JUNIOR.pdf

- Garcez, S. S., & Moreira, J. D. J. D. S. (2017). The patent backlog in Brazil: the right to reasonable duration of administrative procedure. *Direito GV Law Review*, 13, 171-203.
- Gomes, L. A. de V., Facin, A. L. F., Salerno, M., & Ikenami, R. K. (2018). Unpacking the innovation ecosystem construct: Evolution, gaps and trends. *Technological Forecasting and Social Change*, 136, 30-48. https://doi.org/10.1016/j.techfore.2016.11.009
- Guedes, I. L. B., & Sartori, R. (2017). Backlog: reasons, impacts and solutions. In *International Meeting of Scientific Production.* Maringá, PR, Brazil. https://proceedings.science/epcc/trabalhos/backlog-razoes-impactos-esolucoes?lang=pt-br
- National Institute of Industrial Property. (INPI). (2016). President. Executive Board. Economic Affairs Advisory (AECON). *Monthly Industrial Property Bulletin: Preliminary Statistics 2016.* https://www.gov.br/inpi/pt-br/acesso-ainformacao/dados-abertos/arqu ivos/documentos/boletim-mensal-depropriedade-industrial/bmpi-dez-2016.pdf
- National Institute of Industrial Property. (INPI). (2017). *INPI Activity Report 2017.* Rio de Janeiro: INPI. https://www.gov.br/inpi/pt-br/composicao/arquivos/relatorio-de-ativida des-inpi-2017-versao-portugues.pdf
- National Institute of Industrial Property. (INPI). (2018). Activity Report Home. https://www.gov.br/inpi/pt-br/composicao/arquivos/relatorio-de-ativida desinpi-2018.pdf
- National Institute of Industrial Property. (INPI). (2019). *Table of Remuneration for Services Provided by INPI*. https://www.gov.br/inpi/pt-br/servicos/tabelas-de-



retribuicao/tabela-pat entes.pdf

National Institute of Industrial Property. (INPI). (2019). *Preliminary Statistics.* https://www.gov.br/inpi/pt-br/acesso-a-informacao/dados-abertos/arqu ivos/documentos/boletim-mensal-de-propriedade-industrial/bmpi-out-2019.pdf

- National Institute of Industrial Property. (2021). *Patent Basic Guide.* https://www.gov.br/inpi/pt-br/servicos/patentes/guia-basico
- Oxford Advanced Learner's Dictionary. (2018). Oxford, UK: Oxford University Press, 2018.
- Santos, I. J. S., Amaral, Y. S., Alves, F. F., & Gava, R. (2015). Intellectual Property at the Federal University of Viçosa: an analysis of management through patent documents. *Prospecting Notebooks*, 8(2), 255. https://doi.org/10.9771/s.cprosp.2015.008.029
- Silva, E. M. da, Silva, Érik J. F. da, Oliveira, R. B. de, & Silva, A. F. da. (2022). Prospection in the environment of the Production of Natural Antioxidants for Insertion in the Food Market. *Prospecting Notebooks, 15*(1), 245–260. https://doi.org/10.9771/cp.v15i1.43058

The five IP offices. (IP5). (2019). *IP5 Statistics Report 2019.* https://www.fiveipoffices.org/statistics/statisticsreports/2019edition

Ziomkowski, P., Gonçalves, A. N., & Matei, A. P. (2021). Criteria adopted by Brazilian Public Universities for the Maintenance or Abandonment of Patents. *Prospecting notebook*, *14*(2), 364. https://doi.org/10.9771/cp.v14i2.33112.

RESUMO:

O sistema nacional de exploração da propriedade industrial, cuja proteção funciona mediante a concessão de registros patentes, é relevante para е 0 desenvolvimento tecnológico do país. No caso das patentes, o grande aumento de solicitações recebidas pelos escritórios de propriedade industrial gera o que vem se denominando backlog. O objetivo deste trabalho foi verificar o grau de adesão ao programa de trâmite prioritário de processos de patentes para depositantes de Instituições Científicas e Tecnológicas - ICTs, entre os onze Institutos Federais de Educação do Nordeste. Contudo, percebe-se que a adesão ao trâmite prioritário para patentes de ICTs ainda é algo pouco explorado.

PALAVRAS-CHAVE: Patentes; INPI; Institutos federais; Trâmite prioritário.

propiedad industrial genera lo que se ha denominado backlog. El objetivo de este trabajo fue verificar el grado de adhesión al programa de tramitación prioritaria de procesos de patentes para depositantes de Instituciones Científicas y Tecnológicas - TIC, entre los once Institutos Federales de Educación del Nordeste. Sin embargo, se percibe que la adhesión al procedimiento de prioridad de patentes TIC es aún algo poco explorado.

PALABRAS CLAVE: Patentes; INPI; Institutos federales; Procedimiento prioritario.

RESUMEN:

El sistema nacional de explotación de la propiedad industrial, cuya protección funciona a través del otorgamiento de registros y patentes, es relevante para el desarrollo tecnológico del país. En el caso de las patentes, el gran incremento de solicitudes recibidas por las oficinas de