

PATENT SYSTEM IN BRAZIL – INNOVATION, DINAMISM AND THE RELATIONSHIP BETWEEN BRAZIL AND JAPAN

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SUMMARY



- Introduction
 - a. Why file patents in Brazil
 - b. The BPTO
- Overview of the Brazilian IP Law
- **Results and Backlog**

- 4 Remedying the backlog
- 5 Patent Litigation in Brazil
- 6 Brazilian General Elections a look into the future
- 7 Conclusion

INTELLECTUAL PROPERTY RIGHTS



Intellectual Property – A special kind of property, related to intangible assets

Rights granted to IP titleholders:

- **Exclusive Use**
- Prevent third-party use
 - License
 - Assignment

Trademarks



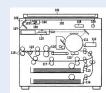
Mitsubishi's trademark no. 200050915

Industrial Designs



Toyota's Industrial Design no. BR 302018001658-0

Patents



Canon patent BR 1 O 2012 033237-0

And other assets...

WHY SEEK PATENT PROTECTION IN BRAZIL?



207.7 million people (2016 data): Potential Customers and a productive Labor Pool

Largest economy in Latin America

> Agrobusiness as a strong suit, Strong market for automotive and mobile industries



World-famous biodiversity

Biodiversity regulatory system in favor of sustainable development (Genetic Heritage and Associated Traditional Knowledge)

THE BRAZILIAN PATENT AND TRADEMARK **OFFICE – BPTO**





✓ Administrative independence, but is not financially independent, meaning all of what the BPTO earns with official fees is sent to the Central Federal Government, and the BPTO needs its approval for hiring examiners.

NUMBER OF EXAMINERS





206 (2017) 328 (October 2018)



Number of Patent examiners



8147 (2017)



4378 (2017)



1696 (2017)

SUMMARY

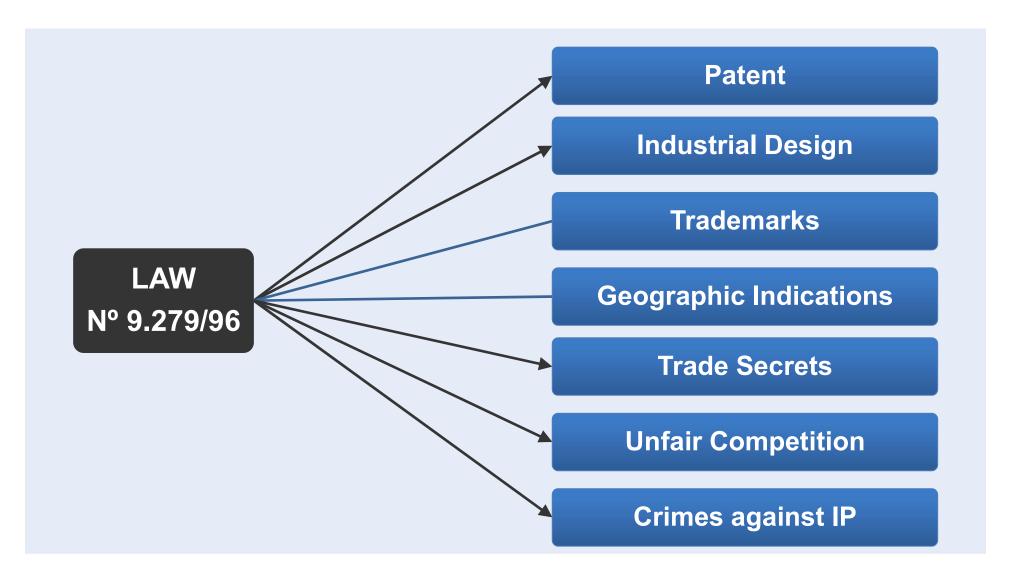


- Introduction
- Overview of the Brazilian IP Law
 - a. What can be protected as a patent
 - b. What cannot be protected as a patent
 - c. Patent Examination
 - d. Amendments
 - e. Patent Rights
 - f. X-RAY
- **Results and Backlog**

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LAW N°9279/96 - SCOPE OF PROTECTION





LEGAL REQUIREMENTS



(Brazilian patent system is governed by the "first-to-file" regime)

Nature of the Patent:

✓ Invention – Art 8 BIPL

Products: systems by functional elements, product by process, etc.

Process: methods, Swiss-type claims, etc.

- Novelty (exceptions article 12 and 17)
- Inventiveness and
- Industrial applicability
- ✓ Utility Model Art. 9 BIPL

Products

- Novelty (exceptions article 12 and 17)
- Inventive act and
- Industrial applicability
- ✓ Certificate of Addition Art. 76 BIPL
 - Accessory
 - Inventiveness not mandatory
 - Only applicable to Patents of Inventions

LEGAL EXCEPTIONS TO PATENTABILITY



Article 10 – The following are not considered inventions or utility models:

- discoveries, scientific theories, and mathematical methods
- abstract concepts;
- schemes, plans, principles or methods;
- literary, architectural, artistic and scientific works
- presentation of information
- Rules of Games

LEGAL EXCEPTIONS TO PATENTABILITY



Article 10 – The following are not considered inventions or utility models:

- surgical techniques and methods, as well as therapeutic or diagnostic methods, for application to human or animal body
- software, per se
- all or part of natural living beings and biological materials found in nature, even if isolated therefrom, including the genome or germoplasm of any natural living being, and the natural biological processes

Exceptions:

- 1. Therapeutic methods only accepted if changed to the Swiss-type format
- 2. Software non-patentable, but inventions implemented by software are patentable

LEGAL EXCEPTIONS TO PATENTABILITY



Article 18 - The following are non-patentable, despite the possibility of being an invention/utility model:

- Anything considered against moral standards, public security and public health;
- Physical-chemical modifications, when resulted from changes on the atomic nucleus, as well as the process to achieve it,
- Natural living beings: exception patentable microorganisms modified by human action (transgenics)

Plant variety rights are specified in a separate and limited system based on the UPOV Convention (Version 1978), which is governed by **Plant Variety Protection Law № 9,456/97**.

BIO GUIDE – EXAMPLES



Process for producing genetically modified microorganisms	Р
Fusion Proteins	Р
Process for obtaining embryonic or non-embryonic stem cells	P
Isolated Microorganisms	NP
Polyclonal Antibodies	NP
Surgical Method	NP

NOVELTY EXCEPTION



Disclosure of the invention (grace period - Article 12)

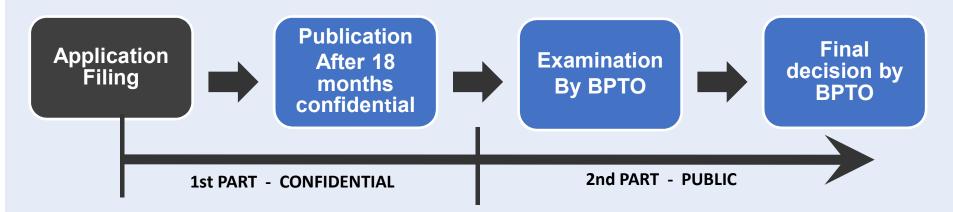
The invention shall not be considered state of the art if it is disclosed within 12 months prior to the filing or the priority date by:

- the inventor;
- the BPTO without authorization of the inventor; or
- third parties based on information obtained directly or indirectly from the inventor without authorization.

BRAZILIAN PATENT APPLICATION AND GRANT IN BRAZIL



*except for pharmaceutical products, which must have ANVISA's prior consent



FILING DATE

36 MONTHS –
REQUEST FOR
EXAMINATION (FILING

DATE)

Art. 32 "In order to better clarify or define a patent application, the applicant may make changes until the time of the request for examination (...)"

AFTER THE PUBLICATION

Art. 31 "After publication of the application and up to the end of the examination, interested parties may submit documents and data to assist the examination."

PATENT EXAMINATION REQUEST



Examination by the BPTO involves

- Prior Art
- Sending to ANVISA, in the case of pharma and biotech
- Analysis of formal documents e.g. power of attorney
- Priority Right
- Substantive Examination

Office actions and unfavorable technical opinions

- 60 or 90 days to respond
- Term not extensible
- Office actions → Lack of response = shelving
- Unfavorable technical opinions → Lack of response = Rejection

Appeals

- 60 days to appeal rejecting decision to the President of the BPTO
- Case examined by board of three examiners

AMENDMENTS



Article 32: Amendments are used to:

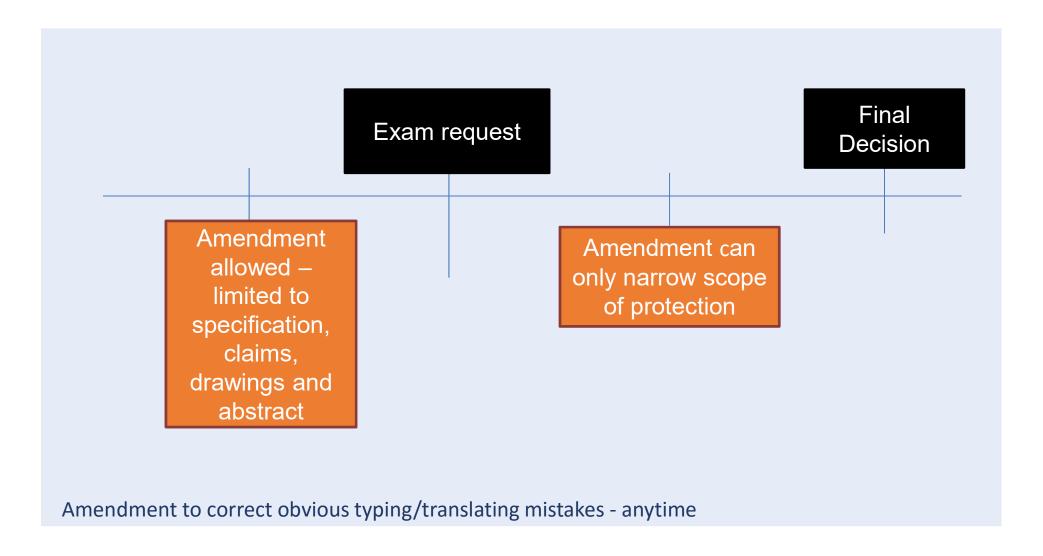
Improve, clarify and correct, provided the amendments are related to what is already disclosed on the patent application, such as, specification, claims, drawings, abstract and sequence listing, if any

INPI's Resolution 93,2013

- 1) Before requesting examination possible to make amendments on any part of the application, limited only to the disclosed on the patent application
- 2) After requesting examination altering the claims will only be allowed when intended to narrow the patent's scope of protection
- 3) Obvious mistakes of typing/translating the document can be amended anytime.

AMENDMENTS





PATENT RIGHTS



Scope of Protection:

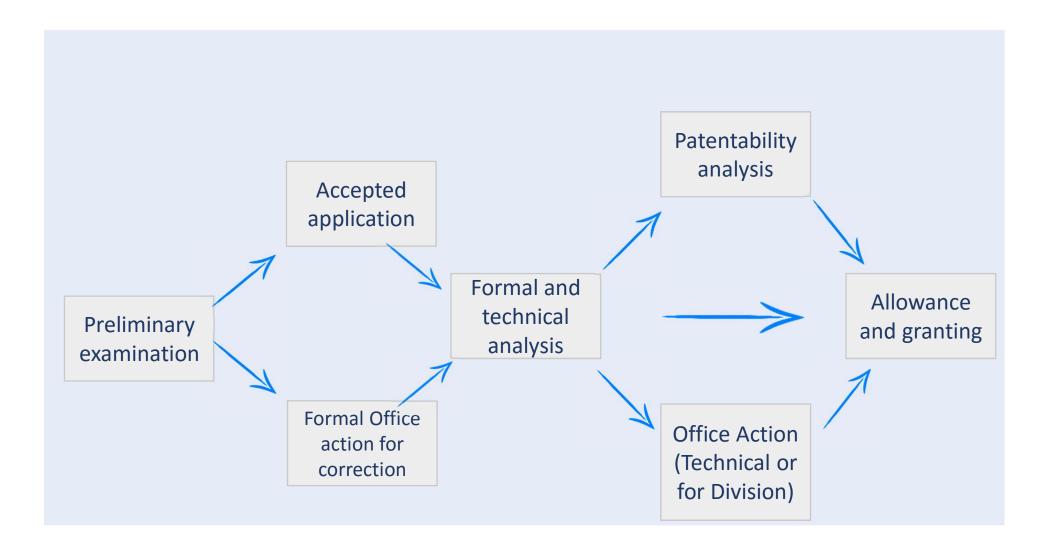
- Defined by the claims
- Interpreted on the basis of the specifications and drawings

Rights granted:

- (1) prevent a third party from, without his consent, producing, using, offering for sale, selling or importing
 - a product that is the object of the patent;
 - a process or a product directly obtained by a patented process.
- (2) Prevent third parties from contributing to an infringement

X- RAY OF BPTO'S PATENT PROCEDURE





SUMMARY

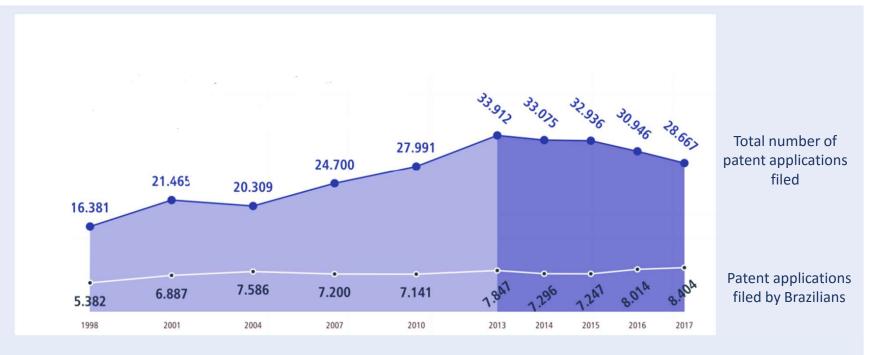


- 1 Introduction
- 2 Overview of the Brazilian IP Law
- 3 Results and Backlog
 - a. Application Filing
 - b. Backlog
 - c. Decisions

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LATEST RESULTS ON PATENT APPLICATION FILING

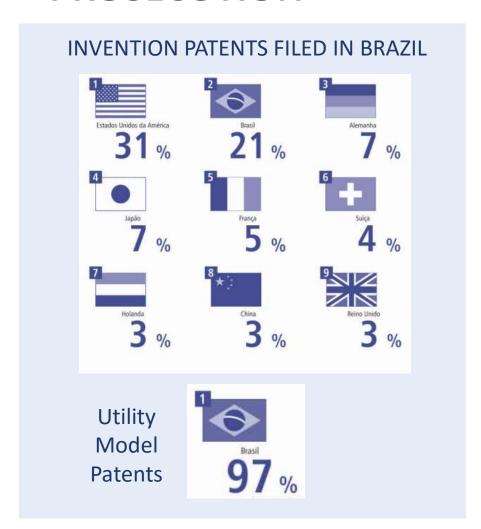




- ✓ The number of applications filed in Brazil has decreased in recent years.
- ✓ Possible reasons for this are the economic crisis that has been affecting Brazil for the past 4 years, along with the Patent Backlog that the BPTO struggles with.

LATEST RESULTS ON PATENT PROSECUTION

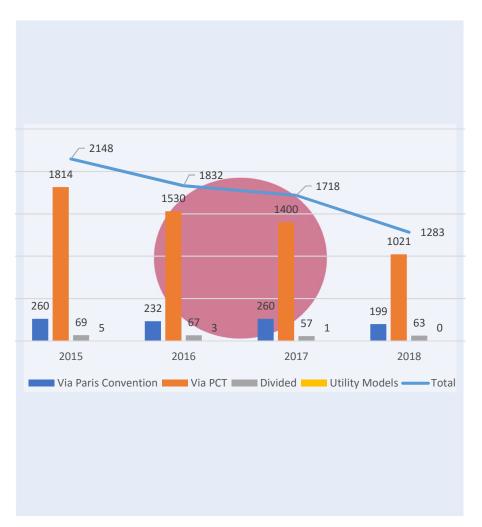




- ✓ While National filings correspond to a total of 21% of the Invention patents in Brazil, National companies are responsible for filing 97% of the utility model patents.
- ✓ These statistics show that the Brazilian national companies likely lack investment in high-end innovation. Whereas, foreign companies still dominate the Brazilian Innovation Market.

LATEST RESULTS ON PATENT PROSECUTION

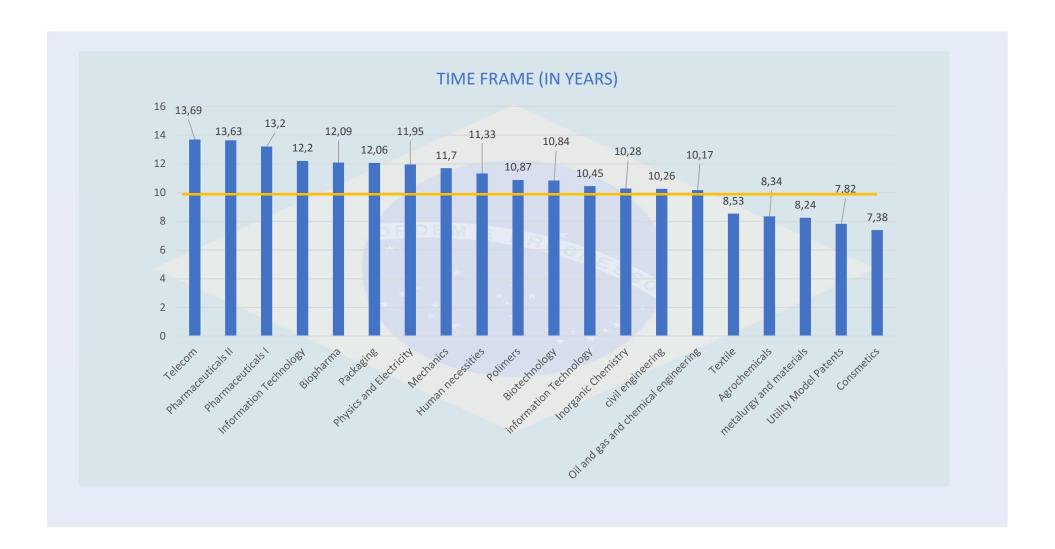




✓ Patent applications filed by Japanese applicants in Brazil have been decreasing in recent years, despite Japan ranking 4th in terms of invention patent applications filed in the country.

THE PATENT GRANT TIME FRAME

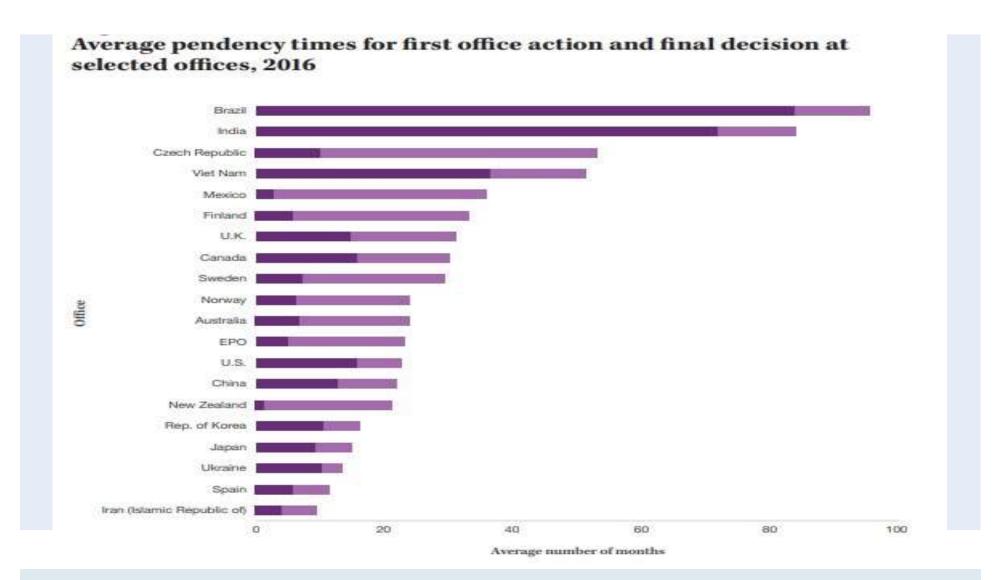




THE PATENT GRANT TIME FRAME



- A COMPARISON (2016)

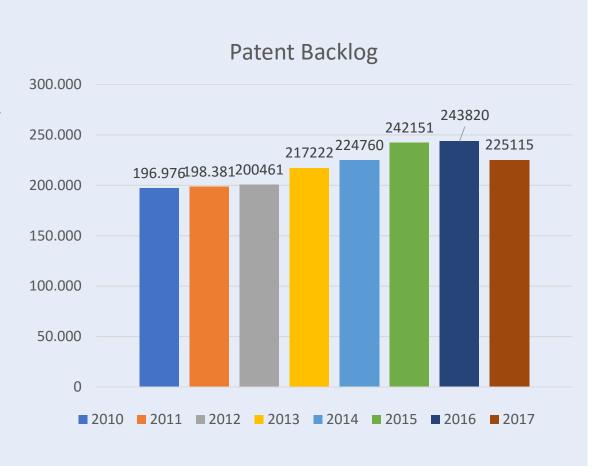


PATENT BACKLOG



✓ Currently, the number of pending patent applications (commonly referred to as patent backlog) is over 225 million.

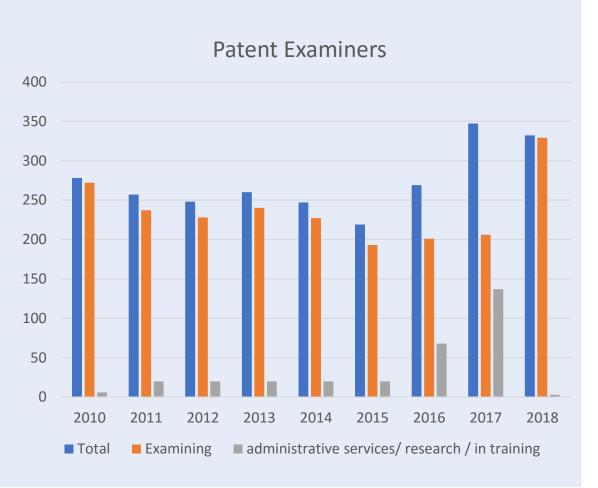
✓ A review of the historical filings demonstrates that the backlog has been decreasing as of last year.



PATENT BACKLOG

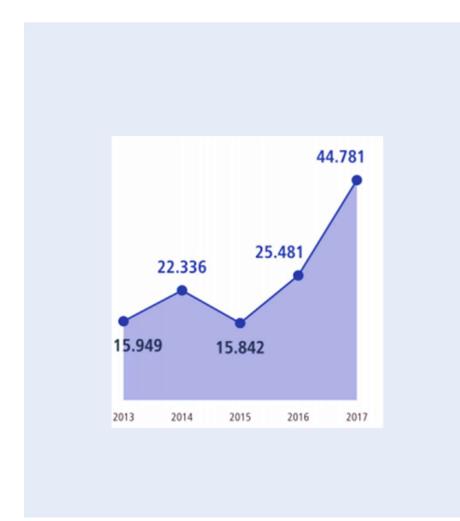


✓ One of the factors that has contributed to the decrease of the backlog has been maximizing the number of active examiners (in Orange).



LATEST RESULTS ON DECISIONS OF PATENT PROSECUTION





- ✓ The BPTO has drastically increased the number of overall decisions concerning patent filings, with an increase of more than 60% compared to 2015.
- ✓ The BPTO states that this was due to an optimization of internal procedural management, automatization, and implementation of home office.

THE PHARMA PATENT BACKLOG ISSUE



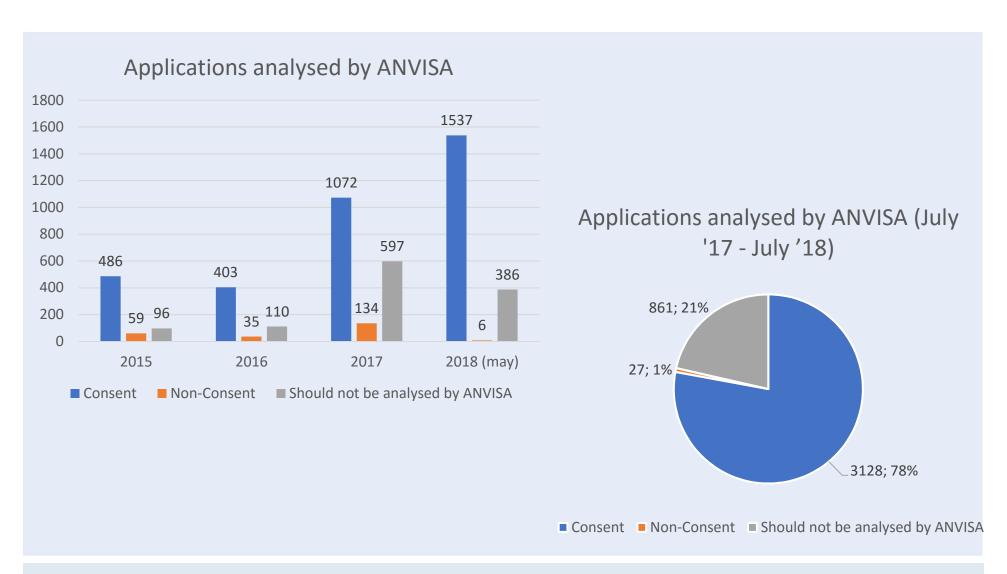




- ✓ Pharma patent backlog in Brazil currently amounts to 13 years!
- ✓ Brazilian IP Law dictates that pharmaceutical patent applications need to be examined by ANVISA in light of the public health before being granted by the BPTO.
- ✓ After many years, in which ANVISA was actually conducting patentability examination, in 2017, the BPTO and ANVISA released a joint ordinance and ANVISA's role was finally reduced, in practice, to prior consent in light of only public health.

PHARMA PATENT STATISTICS





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- 1 Introduction
- 2 Overview of the Brazilian IP Law
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4 Remedying the backlog

- a. Fast-track procedures
- b. Patent Prosecution Highway(PPH)
- c. Ordinary solutions examined, pre-examination procedure and extraordinary procedure
- 5 Patent Litigation in Brazil
- 6 Brazilian General Elections a look into the future
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GREEN PATENT PROGRAM



The Green Patent Program began in April, 2012 as a Pilot Program. After 3 successful phases, the BPTO converted it into a permanent program in December, 2016.

From its creation in 2012 through February 2017, patent applications fell mostly into the following categories:

- ✓ Waste Management (51.3%)
- ✓ Alternative Energy (28%)
- ✓ Agriculture (10.2%)



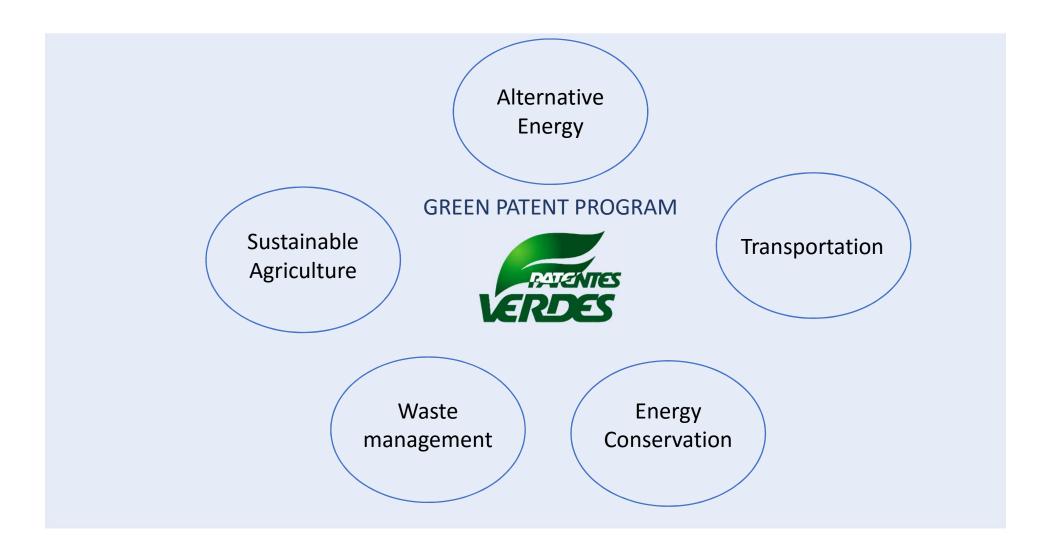
GREEN PATENT PROGRAM



Requirements:

- The application is an invention or a utility model application
- The application is a national application (resident or nonresident) and PCT
- The application contains a maximum of 15 claims in total, with up to three independent claims
- The exam cannot be suspended to comply with a technical office action







Health-Related Patents



The BPTO will fast-track patent applications of pharmaceutical products and processes, as well as medical devices related to public health, in the following cases:

- if requested by the Ministry of Health
- If requested by any interested party, and the patent application refers to diagnostics, prophylaxis and the treatment of AIDS, cancer, or rare or neglected diseases

This fast-track option was created in 2013 and was extended in 2018 to also include Zika, Chikungunya and Dengue as neglected diseases, as well as rare diseases.

FAST – TRACK PROCEDURES



Special Cases



The BPTO will also expedite examination of patent applications in special cases, such as when:

- The **APPLICANT** is older than 60 (sixty) years;
- If the object of the patent application is being counterfeited by third parties; or
- If the grant of the patent is a necessary condition to the awarding of financial sponsorship by development agencies or an official Brazilian credit institution.

FAST – TRACK PROCEDURES



Special Cases



Third-parties may also request expedited examination when they present evidence that they are being accused by an applicant of reproducing the object of the patent application without the proper authorization.

OTHER FAST – TRACK PROCEDURES





BRAZILIAN PRIORITY



MICRO COMPANIES



TECHNOLOGY INSTITUTIONS

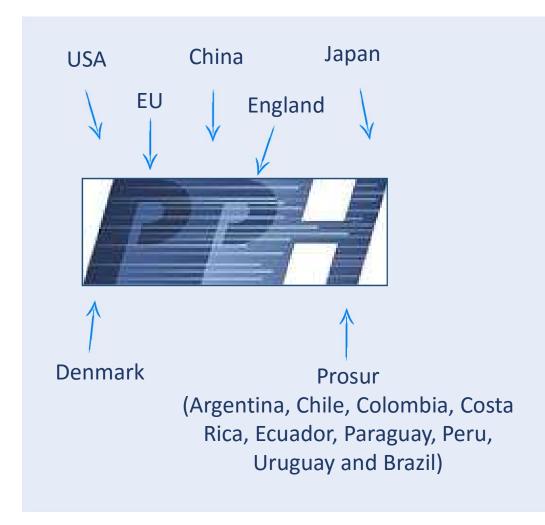
✓ All the patent family applications which were started at the BPTO and also filed in another official IP Office

✓ The applicant is a Brazilian small business company, as defined by Brazilian law.

✓ The applicant is an entity of technology, as defined by Brazilian Law

PATENT PROSECUTION HIGHWAY - PPH

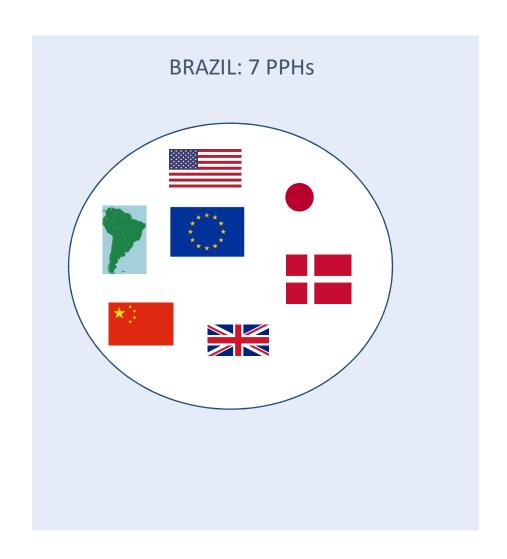


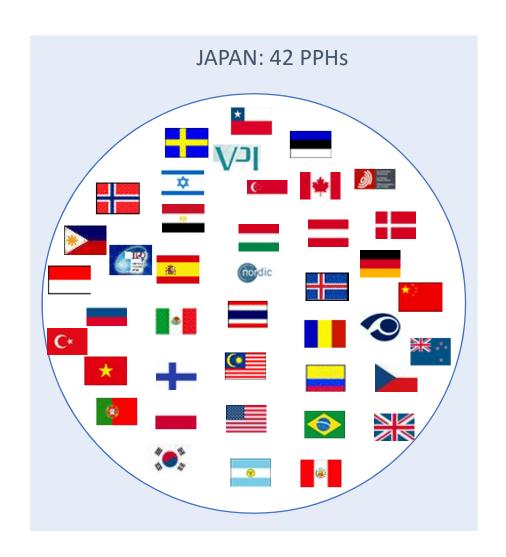


- ✓ One of the methods most used by the BPTO to fast-track applications and foster the exchange between Brazil and other countries
- ✓ There are currently 7 PPH programs in force: USPTO; JPO; PROSUL; EPO; SIPO; UKIPO; and DKPTO.
- ✓ Results show that PPH programs are effective in reducing the backlog.

PATENT PROSECUTION HIGHWAY - PPH







PATENT PROSECUTION HIGHWAY - PPH



PPH	Technological Field
USPTO	Oil and gas, petrochemicals and information technology
JPO	Information technology
PROSUR	Any technical field
EPO	Basic chemistry, organic chemistry and fine Polymer and medical technology
SIPO	Information technology, packaging, measurement and chemistry
UKIPO	Biotechnology, electrical machines, appliances and energy, audiovisual technology, telecoms, digital communication, basic communication processes, computer technology, management methods and semiconductors
DKPTO	Mechanical engeneering, lighting, heating, armory and explosives.

PATENT PROSECUTION HIGHWAY - PPH (THROUGH MAY, 2018)

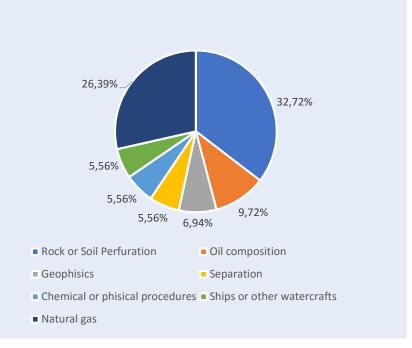


BPTO-USPTO

Requests for participation: 72

Requests admitted: 55

Allowed: 45

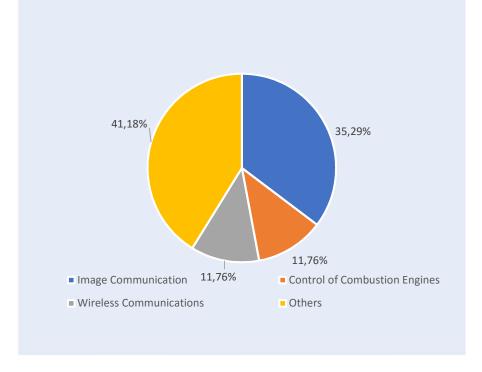


BPTO-JPO

Requests for participation: 77

Requests admitted: 55

Allowed: 30



PATENT PROSECUTION HIGHWAY - PPH (THROUGH MAY, 2018)

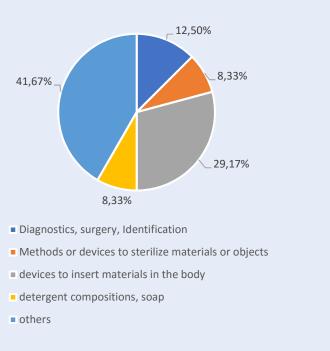


BPTO-EPO

Requests for participation: 26

Requests admitted: 16

Allowed: 5

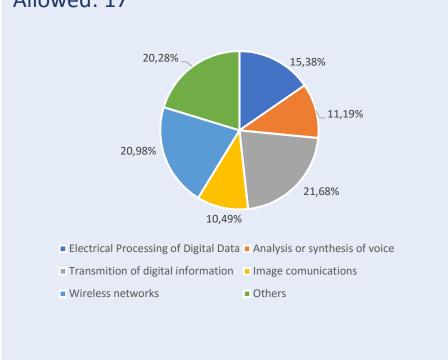


BPTO-SIPO

Requests for participation: 151

Requests admitted: 124

Allowed: 17



PATENT PROSECUTION HIGHWAY - PPH (UP TO MAY, 2018)



Distribution of requests for participation in PPH programs, according to the patent filing dates

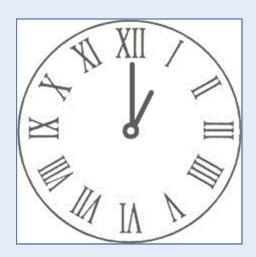




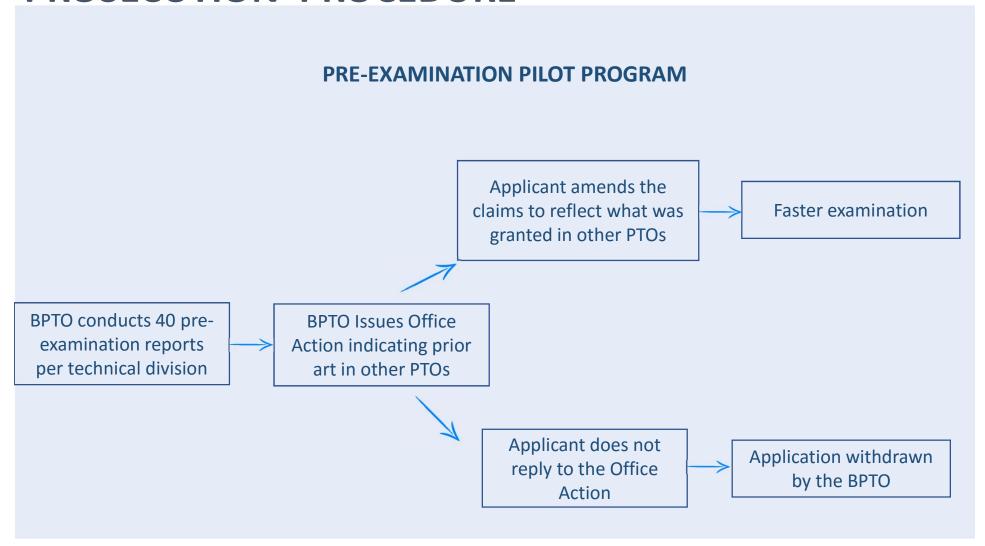


The BPTO has been taking into consideration several options in order to expedite the patent examination procedure, such as:

- Lobbying for approval of a law that gives the BPTO financial independence
- Hiring more examiners
 - · Demands training
- Contracting third parties to perform examination
- Home Office









Pre-examination report for Pilot program:

- ✓ Based on the sucessful results of the Pilot program, this program was extended.
- ✓ The Program is likely to be expanded for all cases filed through 2010.
- ✓ It provides a good alternative for amending claims and obtaining allowance with no further office actions.
- ✓ There is no official fee to be paid for presenting amendments and arguments againts prior art documents.



Number of preexamination reports published

680



Number of applications not answered (withdrawn)

150 (22.1%)



PROPOSAL FOR SIMPLIFIED PATENT ALLOWANCE

Granting pending non-pharmaceutical patent applications as currently drafted, with no substantive technical examination. This solution was presented in 2017.

Requirements:

- ✓ Patent Applications filed by 2014 would go straight to the express examination, and applicants would have to opt-out if they preferred technical examination
- ✓ No pre-grant opposition filed
- ✓ No pharmaceutical applications



Prosecution
Backlog would
decrease...



...but Litigation backlog would increase

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PATENT LITIGATION IN BRAZIL



Types of Infringement

- (I) <u>Literal Infringement</u> all the characteristics must coincide in exact words.
- (II) <u>Infringement by equivalence</u> the infringement occurs in a non-literal way.
 - Case by case analysis suggested
 - Most common type of infringement
 - Different tests were developed to identify an infringement by equivalence,
 e.g. Function-Way-Result test
- (III) <u>Infringement by contribution</u> a third party contributing to patent infringement.

PATENT LITIGATION IN BRAZIL



Remedies available:

- Preliminary and Permanent Injunctions
- Losses and damages, that can be calculated in three different ways, whichever one is more beneficial to the patent titleholder:
 - the benefits that the aggrieved party would have made if the violation had not occurred;
 - the benefits made by the perpetrator of the violation of the right; or
 - the remuneration that the perpetrator of the violation would have paid to the titleholder of the violated right throughout the granting of a license that would have allowed him to lawfully exploit the property





- ✓ Preliminary Injunction Possible Requirements:
 - Irreparable harm if relief is not granted
 - The likelihood of success on the merits
- ✓ Specialized courts in Rio de Janeiro and São Paulo
- ✓ Extensive use and respect for experts' opinion and technical assistants



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BRAZILIAN GENERAL ELECTIONS A LOOK INTO THE FUTURE



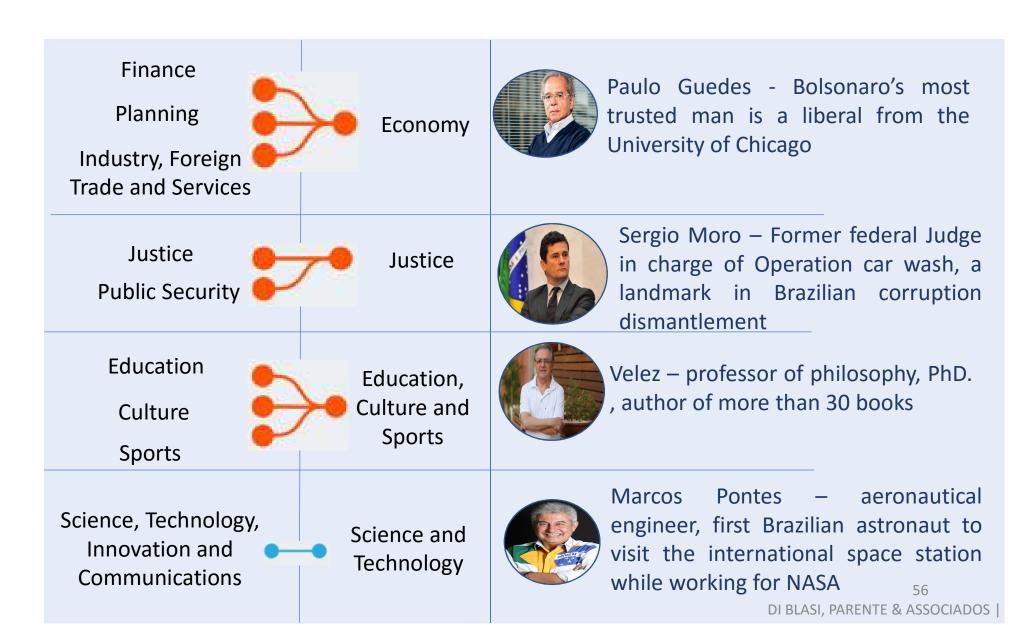
Jair Bolsonaro – elected president of Brazil for the 2019-2022 term

 Expected to rule in a liberal fashion, most likely facilitating commercial transactions, eliminating corruption, reducing bureaucracy, increasing the transparency and improving de IP system





BOLSONARO'S "SUPER MINISTRIES"



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CONCLUSION



- Although the BPTO suffers from a huge backlog issue, it is noteworthy that measures are being taken in order to tackle this problem and to decrease it drastically.
- Investing in Brazil is guaranteeing access to a vast consumer market, in a country that is globally known for its wide biodiversity available for R&D with high levels of legal certainty.



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