

“Patents: Comparative Study of Patenting in various jurisdictions – IPO, JPO, EPO, USPTO”



Miku H. Mehta, Partner
Sughrue Mion PLLC
USA

Agenda

- Introduction
 - International patent regime and PCT
 - Where to protect IP?
- Comparison
 - Substantive Law for Obtaining Patents
 - Strategic Considerations
- Questions and Discussion

INTRODUCTION

- What is intellectual property:
- Why protect intellectual property?
 - encourage creativity and innovation
 - enhance revenue and market domination
 - keeping away the competitors

DIFFERENT TYPES OF INTELLECTUAL PROPERTY

- Copyright;
- Trade Marks
- Patents
- Confidential Information/Trade Secrets

WHY OBTAIN A PATENT?

- Retain your market position
- Increase your market share
- Recover R&D investments and safeguard the results
- Launch new products and processes
- Locate new business partners
- Provide recognition and motivation for employees
- Advance technology from its current state
- Promote creativity and innovation

WHY OBTAIN A PATENT?

- Identify innovative strengths and technological trends, global and regional
- Identify the lack of advancement in a technology and make improvements

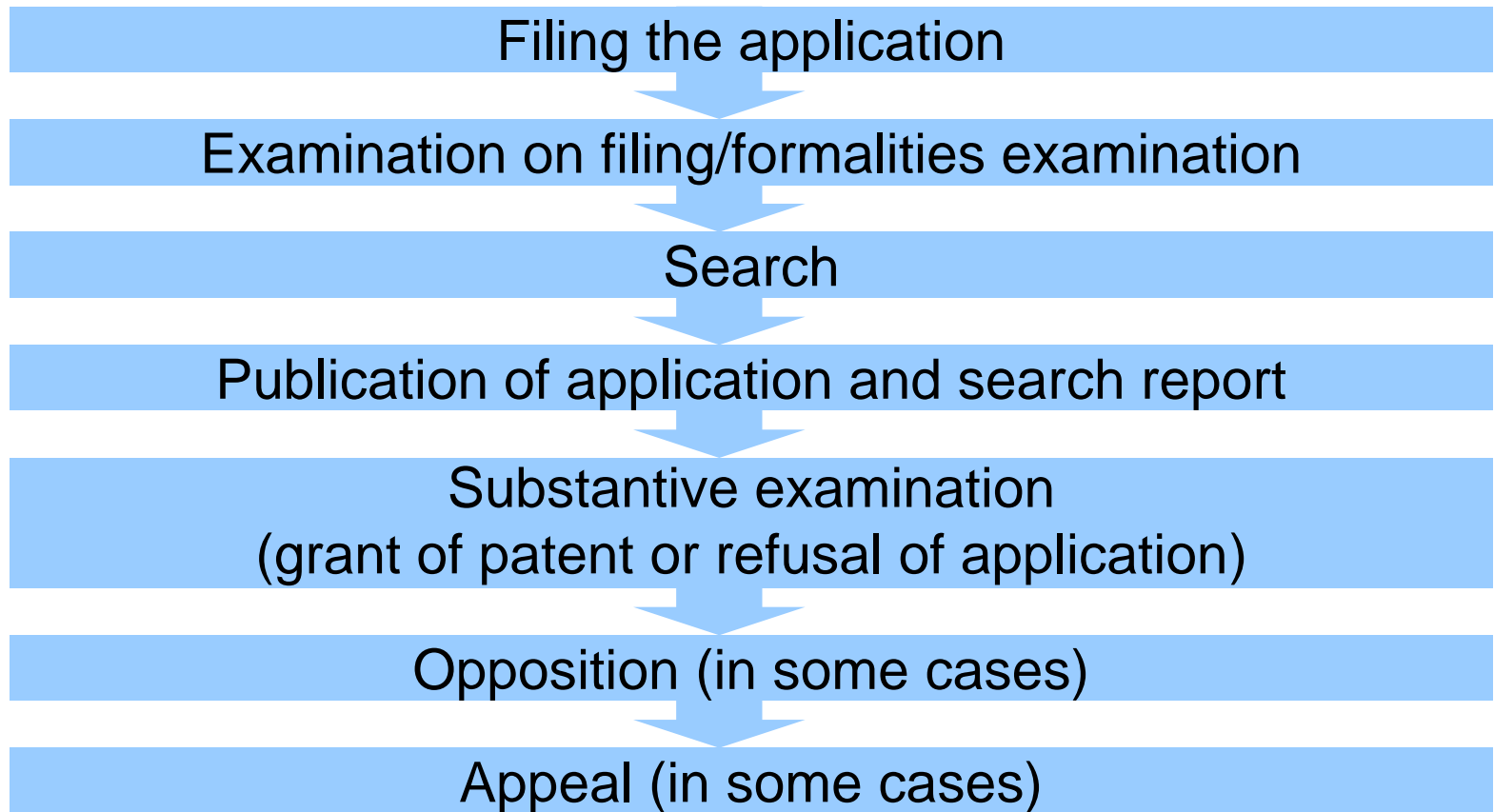
HOW TO APPLY FOR A PATENT?

- Need to have specification drafted – claim of specification sets out scope of protection
- File application in home country
- Search and examination carried out on patent application
- Publication
- Opposition
- Grant

INTERNATIONAL PATENT APPLICATION

- No worldwide patent
- Patent protection is territorial, therefore must file in individual countries
- Need to consider PCT or convention priority
- 12 months priority deadline

General Procedure for Obtaining a Patent



Where Should I Get a Patent?

- It is important to have a strategy for deciding the countries in which to obtain patent protection
- Criteria for decision
 - Where is my product made, sold and used?
 - Where are my customer and suppliers?
 - Where are my competitors?
 - Where can I most effectively enforce against my competitors?
 - Where does a threat exist to the reputation of my product?
 - What is my budget?
 - What is my strategy for entering markets in the future, and what are my potential future products?

“Trilateral” Offices

- European Patent Office (EPO):
 - Established in 1977 by European Patent Convention (EPC) to centralize patent processes for all member states. EPC covers a market of nearly 600 million people
 - The EPO grants "European patents" which have the same status and power of national patents under the national patent enforcement laws of EPC contracting states designated by applicant
 - Size: about 6,500 staff including 3,500 examiners. About 208,000 filings in 2006.
- United States Patent and Trademark Office (USPTO):
 - Established in 1790 to implement U.S. Constitutional requirement "to promote the progress of science and useful Arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries."
 - Largest patent office in the world - about 7,300 employees, mostly in Alexandria, Virginia, including 3 000 patent examiners and 400 trademark examining attorneys, plus support staff. About 400,000 filings in 2006
- Japan Patent Office (JPO):
 - Based on 1885 Patent Monopoly Act; for historical reasons, closely followed development of German system, and stills bears some similarities
 - JPO has 2,651 staff including 1,358 examiners. An average of 400,000 applications are filed per year in JPO

Patent Offices

- **State Intellectual Property Office of the P.R.C. (SIPO)**
 - The Chinese Patent Office (SIPO) was founded on 1980. The Patent Law of the People's Republic of China was adopted on 12 March 1984, and came into force on 1 April 1985. The Patent Law was amended twice ever since its enter into force. The first time amendment took effect on 1 January 1993 and the second time on 1 July 2001, with the Implementing Regulations amended accordingly and effected at the\same time.

Patent Offices

SIPO

- The volume of Chinese patent applications increases year by year ever since the entering into force of the Patent Law on April 1, 1985. In recent 5 years, the average annual increasing rate is 23%. In 2008, SIPO received 828,328 patent applications (up 19.4% over the previous year.
- SIPO has about 2,932 registered examiners.

Patent Offices

- **Indian Patent Office**

- Indian Patent Office is administered by the Office of the Controller General of Patents, Designs & Trade Marks (CGPDTM). It has four branches located at Kolkata, Chennai, Mumbai and Delhi. Kolkata Office is the Head Office. The Patents Act 1970 (as amended) governs the grant of patents. The Act dates back to Act VI of 1856 on protection of inventions based on the British Patent Law of 1852.

Patent Offices

Indian Patent Office

- Patent filings during the year 2007-2008 were 35218 compared to 28420 applications in 2006-2007.
- The Indian Patent Office has 126 Examiners.






Substantive Comparison

- The basic concepts needed to obtain a patent are common in most countries
- However, there are important variations in how these concepts are interpreted
- It is important to understand and consider these variations when determining patenting strategy
- The following study examines the substantive differences between each of the trilateral offices and the Indian Patent Office
- Practical tips and strategies are also provided after the study explanation






But first a question...

What is an
invention?

Patentable Subject Matter

	US 	EP 	JP 	IN 	CN 
Method/Process	○	○	○	○	○
Apparatus/Machine/Product	○	○	○	○	○
Substance	○	○	○	○	△
Abstract Idea, Law of Nature, Algorithm	X	X	X	X	X
Software	○	△	△	X	△
Business Process	○	X	○	X	X
Scheme, Rule, Mental Act, Method of Playing Game	△	X	△	X	X
Integrated Circuit Topography	△	△	△	X	○
Medical Treatment Procedure	○	X	X	X	X

Patentable Subject Matter

	US 	EP 	JP 	IN 	CN 
Pharmaceutical	O	O	O	O	O
Man-made microorganism	O	O	O	O	Δ
Biotechnology process	O	X	O	O	O
Design	O	O	O	O	O
Plants, Animals	Δ	X	Δ	X	X
Works of Art	X	X	X	X	Δ
Traditional Knowledge	O	O	O	X	X
Method of Agriculture/Horticulture	O	O	O	X	O
Atomic Energy	Δ	Δ	Δ	X	Δ
Public Order/Morality	O	X	X	X	X

Novelty - US



- 35 USC §102
 - (a) known/ used by others **in this country**, or patented or described in a printed publication **in this or a foreign country**, before the **invention** thereof by the applicant for patent
 - (b) patented or described in a printed publication **in this or a foreign country** or in public use or on sale **in this country**, more than **one year prior to the date of the application** for patent in the United States
 - (e) invention described in
 - (1) an application for patent published **by another** filed in the United States **before the invention** by applicant or
 - (2) a patent granted on an application for patent **by another** filed in the United States before the invention by applicant,
 - except that an international application filed under PCT shall have the effects for the purposes of this subsection of an application filed in the United States **only if** the international application designated the United States and was published in the English language

Novelty - US



- (c) abandonment (rare)
- (d) first patented or caused to be patented, or the subject of an inventor's certificate, by the applicant or his legal representatives or assigns **in a foreign country** prior to the **date of the application for patent in this country** on an application for patent or inventor's certificate filed more than **twelve months** before the filing of the application in the United States (rare)
- (f) did not invent the subject matter sought to be patented (rare)
- (g)(1) interference under section 135 or section 291: another inventor establishes that before such person's invention thereof the invention was made by such other inventor and not abandoned, suppressed, or concealed, or (rare)
- (2) before such person's invention, the invention was made in this country by another inventor who had not abandoned, suppressed, or concealed it. (rare)
 - In determining priority of invention under this subsection, there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

Novelty - EP



- Statute: "An invention shall be considered to be new if it does not form part of the state of the art"
- To be novel, an invention must not be in the prior art
 - on the date the European patent application is filed or its priority date, if priority is claimed
 - The prior art includes everything made available to the public by written or oral description, or by use or in any other way that enables the public to determine the invention
 - Prior unpublished European Patent Applications are considered prior art for determining novelty of the invention
- Key distinguishing points:
 - offer for sale or sale alone does not cause invention to be "made available to the public"
 - no geographic limitation with respect to where use or oral disclosure of an invention may lead to it becoming public (oral disclosure anywhere in the world might bar the valid grant of a European Patent)
 - prior unpublished applications can only be used for the basis of objecting to the application as lacking novelty (not for lacking an inventive step)
 - no grace period for publications originating from the inventor (except for abuse of right)

Novelty - Japan

- Article 29
 - (1) An inventor of an invention that is industrially applicable may be entitled to obtain a patent for the said invention, except for the following:
 - (i) inventions that were publicly known in Japan or a foreign country, prior to the filing of the patent application;
 - (ii) inventions that were publicly worked in Japan or a foreign country, prior to the filing of the patent application; or
 - (iii) inventions that were described in a distributed publication, or inventions that were made publicly available through an electric telecommunication line in Japan or a foreign country, prior to the filing of the patent application.

Novelty - Japan



- Exceptions

- If JP application is filed within 6 months of any of the following acts, those acts shall not be used for the novelty test
 - Applicant has conducted a test, made a presentation in a printed publication or through electric telecommunication lines, or has made a presentation in writing at a study meeting held by **an academic group designated by the Commissioner of the patent Office**
 - Disclosed against the will of the person having the right to obtain a patent
 - Applicant has exhibited the invention at an exhibition held by the Government or a local public entity (hereinafter referred to as "Government, etc."), an exhibition held by those who are not the Government, etc. where such exhibition has been designated by the Commissioner of the patent Office, or international equivalent thereof

Novelty – China



- Novelty means that, the invention or utility model shall neither belong to the prior art, nor has any entity or individual filed before the date of filing with the Patent Administration Department under the State Council an application which described the identical invention or utility model, and was published in patent application documents or announced in patent documents after the said date of filing.
- The prior art referred to in this Law means any technology known to the public in the country or abroad before the date of filing.

Novelty - India

- Disclosed invention must not be:
 - (a) available in “prior art”
 - Includes prior publication in relevant field before the filing date
 - (b) contained in patent application in any manner before the “priority date”
- Exceptions
 - Publication obtained from the inventor, without the inventor’s knowledge, and the application was filed immediately after becoming aware of the publication
 - Unless the invention was “publicly worked” in India by the inventor or another authorized person
 - Communication to government for investigation
 - Application filed within 12 months of exhibition, publication or paper, experimental public working

Inventive Step: US



- A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, **if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art** to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
- Details of the law have been developed by the U.S. court system and USPTO guidelines
 - Must compare the prior art with the claim, and in view of the level of skill in the relevant technology, determine if the combination or modification of prior art would have been obvious (Examiner must provide an explicit reason and logical basis for the rejection)
 - Applicant can rebut the rejection by making arguments (impossible to combine, teaching away, destroy functionality, etc.)
- The standard was recently clarified in *KSR v. Teleflex* (2007)

Inventive Step - EP



- Statute: "An invention shall be considered as involving an inventive step, if, having regard to the state of the art, it is not obvious to a person skilled in the art."
- Degree of inventiveness required must not be below the average level of all of the members states of the EPO
- In examination, EPO takes a "problem and solution" approach
 - 1. ascertain closest prior art
 - 2. determine technical problem to be solved
 - The subject matter of the claim must solve a technical problem
 - 3. examine whether the claimed invention would have been obvious to the skilled person in view of the closest prior art and the technical problem, to achieve the "technical effect" of the invention

Inventive Step: Japan

- Where, prior to the filing of the patent application, a person ordinarily skilled in the art of the invention would have been able to easily make the invention based on an invention prescribed in any of the items of the preceding paragraph, a patent shall not be granted for such an invention notwithstanding the preceding paragraph.
- Implementation is very similar to U.S. standard

Inventive Step: China



- "Inventiveness" means that, as compared with the prior art, the invention possesses prominent substantive features and represents a notable progress and that the utility model possesses substantive features and represents progress.

Inventive Step: India



- “Inventive step” means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art
 - Obvious
 - Does not go beyond "normal progress" of technology, but merely follows logically from the prior art
 - Does not require exercise of skill/ability beyond the expected level of one skilled in the art

Inventive Step: India



Continuation

- Technical advancement compared to existing knowledge
- Economic significance

Disclosure/Claims - US

- Specification (English, but can be filed in another language and then later translated)
 - Written description (show inventor was in possession of the purported invention)
 - Enablement (public dedication of how to make/user the invention in exchange for patent rights)
 - Best Mode (applicant cannot “hide” best mode from the public)
 - New matter cannot be added without losing filing date
- Claims
 - At least one claim, directed to one of the statutory classes
 - Up to 20 total/3 independent with basic filing fee
 - Independent vs. dependent
 - Various types discussed in greater detail later/tomorrow

Disclosure/Claims - EP



- Language: English, French, or German, or “admissible non-EPO language”
- Article 83 - application must disclose the invention in a manner sufficiently clear and complete to be carried out by one skilled in the art.
- Article 84 - claims must be clear, concise and supported by the description.
- EPO Implementing Regulations:
 - Indicate background art which applicant believes to be useful for understanding the invention, for performing the European search and for examination (documents *should* be cited)
 - Disclose the claimed invention so that the technical problem (implied or express) and its solution can be understood, and state advantageous effects of the invention as compared with the background art
 - Describe in detail at least one way of carrying out the invention claimed using examples and drawings, if appropriate
 - Explicitly disclose (if not obvious from the description or nature of the invention), the industrial applicability of the invention

Disclosure/Claims - Japan



- Specification (Japanese, or translated from another language)
 - Includes written disclosure/enablement requirement:
 - “Clear and sufficient as to enable any person ordinarily skilled in the art to which the invention pertains to work the invention”
 - “The invention for which a patent is sought is stated in the detailed explanation of the invention.”
 - No best mode requirement
- Claims
 - Similar to US standard
 - For each claim, all matters necessary to specify the invention for which the applicant requests the grant of a patent must be included

Disclosure – China



- A request, a description and its abstract, and claims shall be submitted
- The request shall state the title of the invention or utility model, the name of the inventor or creator, the name and the address of the applicant and other related matters
- The description shall set forth the invention or utility model in a manner sufficiently clear and complete so as to enable a person skilled in the relevant field of technology to carry it out; where necessary, drawings are required

Disclosure – China



- The abstract shall state briefly the main technical points of the invention or utility model.
- The claims shall be supported by the description and shall state the extent of the patent protection asked for

Disclosure/Claims - India



- Specification (Hindi or English – **no grace period for translation**)
 - “fully and particularly” describes the invention
 - must provide industrial applicability
 - preamble “ The following specification particularly describes the nature of this invention and the manner in which it is to performed.”
 - Up to 30 pages without extra fee
 - Average person of skill in the art should be able to perform the invention
 - Avoid certain terms: “Special”, “design”, “suitable”, “etc”. “Whereby”, “if desired”, “and/or”, “customary methods”, “known methods”.
 - Best mode required: specification **can** be updated to add best mode without losing filing date, and can differ from the published application as long as it is within the scope of that subject matter
- Claims
 - 10 claims/30 sheets without extra fee
 - First claim must be broadest
 - One process, one product and one use per application
 - Special meaning of “characterized in that...” (Examiner may request it to be included)

Foreign Filing License: US



- (Japan/EP has no requirement for foreign filing permission)
- US: Need permission to apply for invention abroad
- Applicants must avoid improper export of data/information in violation of U.S. Customs regulations
- This includes invention disclosures and draft application specifications
 1. Wait 6 months after U.S. filing date
 2. Request expedited foreign filing license
 3. If applicant fails to obtain license through error and without deceptive intent, application can be made retroactively
 4. Penalties for failure
 1. Patent unenforceable due to misconduct
 2. Fine/Jail

Foreign Filing License: India



- Need permission to apply for invention abroad
 - For residents of India who are inventors
 - Invention that occurred in India (regardless of residence)
 - Must apply in India 6 weeks before applying abroad
 - Controller processes request
 - Up to 21 days from request date
 - No chance for retroactive application (must withdraw the improper application)

Duty of Disclosure: US



- (Japan/EP has no duty of disclosure)
- US – all persons involved in preparation, filing and prosecution of application are under strict duty of disclosure
 - No duty to search
 - If you become aware of relevant information (not just prior art), you must submit an Information Disclosure Statement
 - Failure to submit such a statement could lead to a court determination of **inequitable conduct** (i.e., patent is unenforceable)

Duty of Disclosure: India

- Duty to notify details of related foreign applications
 - Country, filing/publication date, application status
 - Examination and Search reports
 - Must be filed before final acceptance date of application
 - Non-compliance is a grounds for opposition
 - Can be delayed with petition and fee
 - Further information can be requested from applicant regarding foreign applications by Examiner

Opposition – US



- Pre-grant: none as such
- Inter partes reexamination offers limited third party participation
 - Only post grant
 - Only written prior art
 - Litigation estoppel for arguments that were made or **could have been made** in the reexamination proceedings
- U.S. Court litigation is sometimes used
 - Declaratory Judgment (if not yet sued)
 - Countersuit (if already sued)
 - Burden to show invalidity is clear & convincing evidence
 - U.S. litigation is costly

Opposition – EP



- Post-grant
- Contentious/inter partes
- Goal - allow any European patent to be centrally opposed
- Who may oppose: any person from the public, regardless of whether a commercial interest exists (e.g., discovery of new prior art that was not considered during the prosecution of the original application for patent)
- Basis for opposition: Article 100 (subject-matter of the patent is not patentable, not sufficiently described to allow a person skilled in the art to carry out the invention, or content of the patent extends beyond the content of the application as filed)
- How to file: written opposition plus fee filed at EPO (Munich, The Hague or Berlin) within nine months from the patent grant announcement.
 - Must include a written statement of the grounds for the opposition, including facts, evidence and arguments

Opposition – EP



- EPO Opposition Division examines whether the opposition filing requirements have been met. If so, the examination is completed.
 - The patent owner can reply to the filer of the opposition, and may make arguments and amendments to address the grounds of the opposition
- Oral arguments may be made by request of either party or the EPO itself; the oral arguments are public
- After completion of examination, the patent is either maintained in original or amended form, or revoked. Even if the patent is not revoked by EPO, some national courts may revoke the patent in litigation.
 - EPO and national proceedings may be conducted in parallel, although national court may stay proceedings to await result of EPO procedure

Opposition – Japan



- Pre-grant
 - Abolished in 1996
- Post-grant opposition before JPO
 - Abolished in 2003
- Invalidity Proceeding in JP Court
 - Since 2000, Japanese courts have had jurisdiction to decide invalidity in infringement actions
 - Since 2004, the litigation-style invalidity trial has been the sole mechanism for post grant opposition of patents

Opposition – India

- Pre-grant
 - After publication but before acceptance (allowance)
- Post-grant
 - Up to 12 months after notification of allowance of the application in the Official Gazette of India
- India Court System
 - Injunctive relief (temporary or permanent), damages

Inventor Activity to Help/Hurt

- What is important in each jurisdiction?
 - US
 - Avoid prosecution history estoppel and claim amendments
 - Conduct personal interviews and
 - Overcome prior art rejections
 - attempt to disqualify art before making arguments/amendments
 - Focus on argument necessary to convince Examiner to withdraw obviousness type rejections
 - USPTO becoming strict with respect to software and to small “improvements” that are predictable or expected
 - Comply with duty of disclosure
 - Coordinate with patent agents in all other jurisdictions to ensure that foreign Office Actions are submitted to USPTO
 - Ensure correct inventorship and a thorough disclosure
 - Do not list non-inventors
 - Do not omit inventors
 - Obtain proper assignment documents

Inventor Activity to Help/Hurt

- Japan/EP
 - Strict limits on introduction of amendments
 - No “shift” of invention permitted from “patentable technical feature”
 - Applicant must be very careful to avoid amendments that do not follow these rules, and to file amendments during the proper time window
 - Rules are very structured and must be followed very carefully
 - Share EPO/JPO search results with USPTO as soon as possible
 - In collaborations with inventors working in Japan, be aware of inventor compensation issues

Inventor Activity to Help/Hurt

– India

- Speed in response is critical due to 12 month window
- Compromise with the Examiner on formalities
- Focus on most important technical points
- Don't await due date, but reply immediately
- Use interview practice to develop a working relationship with the Examiner
- Remember to comply with duties of (a) permission for foreign filing (b) inform status of related foreign applications

Can it Happen in India

- The requirements for innovation
 - Doing things in a new way
 - Trying Hard
- The requirements for commercialization
 - A team that works together
 - A market for your products
 - A way to get there
- You are **ALREADY** doing it like no one else!!!
- Get your IP, protect it, and commercialize it!

Conclusion

- Questions, Comments, Discussion
- Thank you for your time!