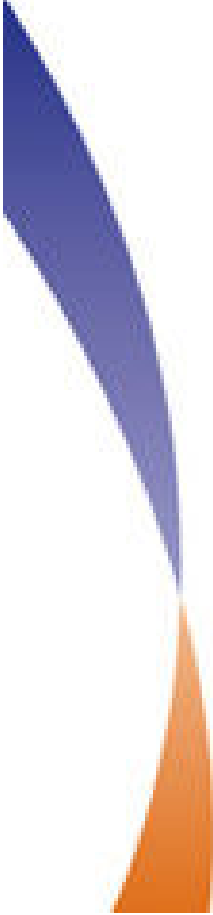


Managing your Intellectual Property

**Copyrights, Trade-marks,
Trade Secrets and Patents**



Doran Ingalls & Roger Kuypers
New Ventures BC
April 13, 2010



Disclaimer

- The information contained in this presentation is of a general nature. It is not legal advice and should not be construed as or in any way considered to be legal advice.



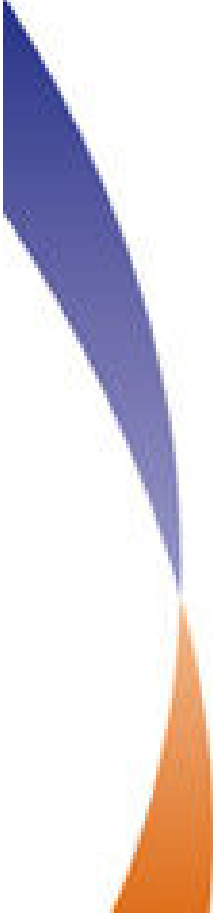
Topics we will cover

- I. Main types of IP
- II. IP commercialization models
- III. Assignments and licenses



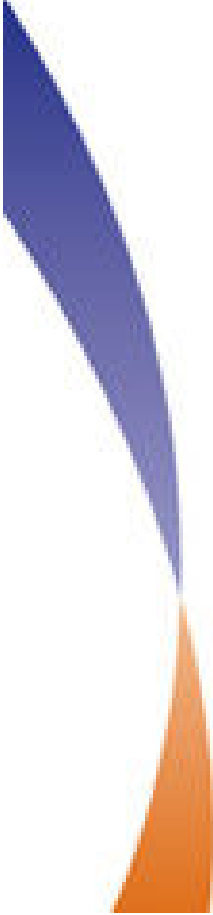
IP management considerations

- I. IP identification
- II. IP ownership
- III. IP protection



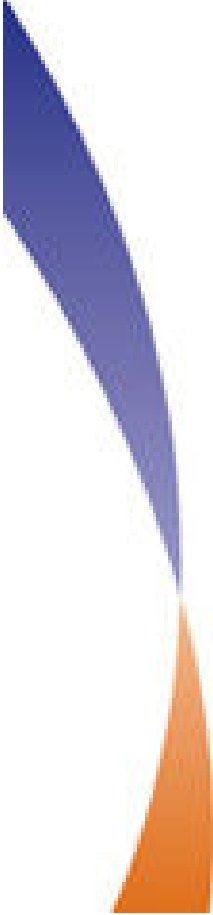
Intellectual Property

- Four pillars of intellectual property
 - Copyrights
 - Trade-marks
 - Trade secrets
 - Patents
- Other forms of IP
 - Industrial design
 - Plant breeders rights
 - Integrated circuit topography



Quiz

© What types of IP protect software?

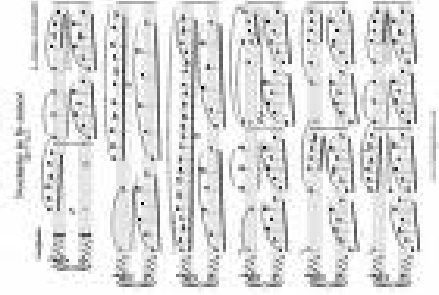


Copyright

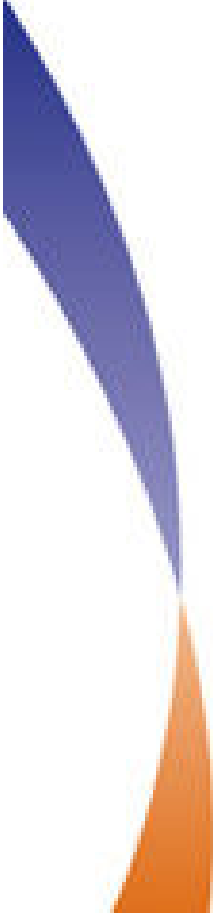
- © Copyright protects the expression of idea, not the ideas themselves
- © Copyright is the sole right to produce or reproduce a work, or a substantial part of a work

Copyright cont'd

© “Work” includes books, songs, computer programs, instruction manuals and website designs

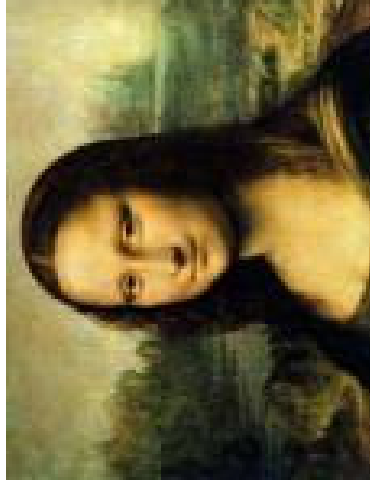
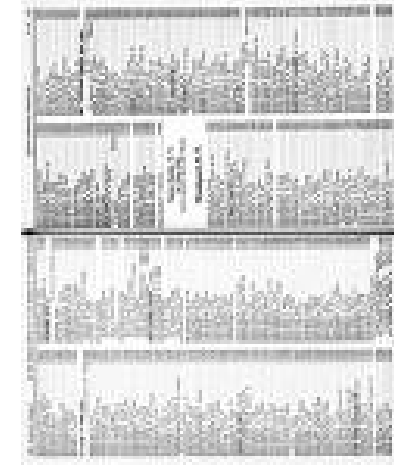


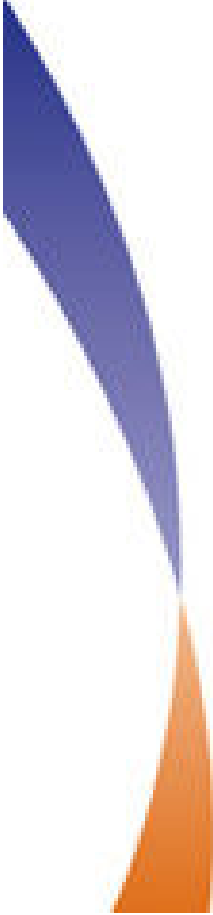
FASKEN
MARTINEAU



Copyright cont'd

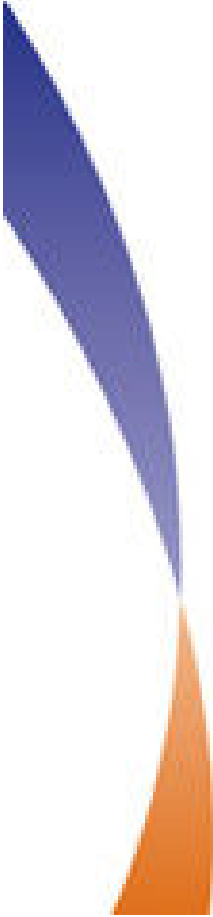
- © Requirements:
 - © Originality: the exercise of skill and diligence, but not necessarily creativity
 - © Fixation: must be expressed to some extent at least in some material form





Copyright

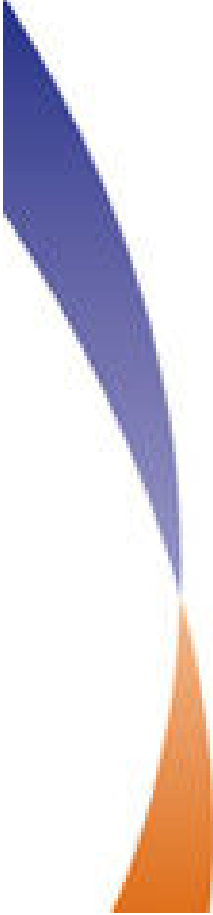
- © As a general rule, the author (or creator) of a work is the first owner of copyright
- © Freelancers or independent contractors are considered the “author” or their creations
- © Employment is an exception to the general rule



Moral Rights

- © Moral rights give the author of a work the exclusive right to be associated with the work and to the integrity of the work
- © Moral rights can only belong to people
- © Moral rights cannot be assigned, only waived





Copyright Protection

- © Arises automatically
- © © notices should be used
- © Registration enhances rights
 - © Simple and inexpensive to register
 - © Registration in US is more significant

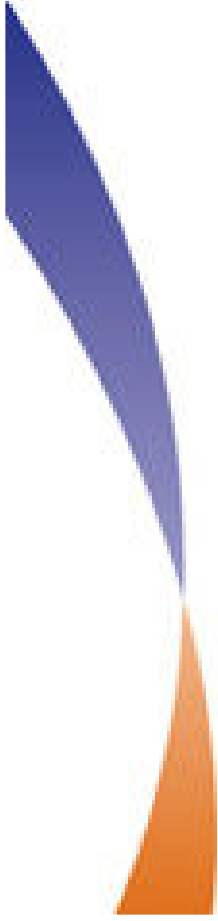


Copyright Management

- © Focus on ownership and rights
- © How are works developed?
- © What do your contracts say about copyright?
 - © Employment agreements
 - © Service contracts
 - © Licenses



Copyright Questions?



Trade-marks

Interbrand's most valuable brands (2006):

Coca-Cola

Microsoft

IBM

intel® **NOKIA**

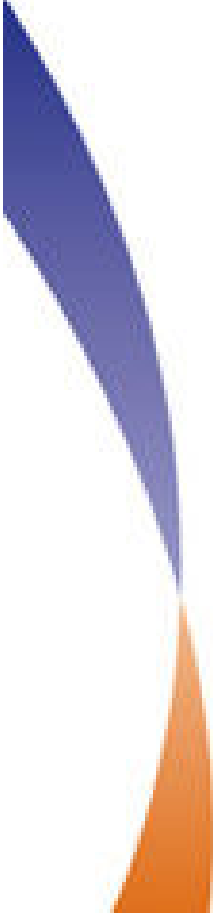


TOYOTA

Disney



FASKEN 
MARTINEAU



Why are trade-marks important?

- The goodwill associated with products and companies reside in their respective trade-marks
- Consumers make decisions based on trade-marks



Managing trade-marks

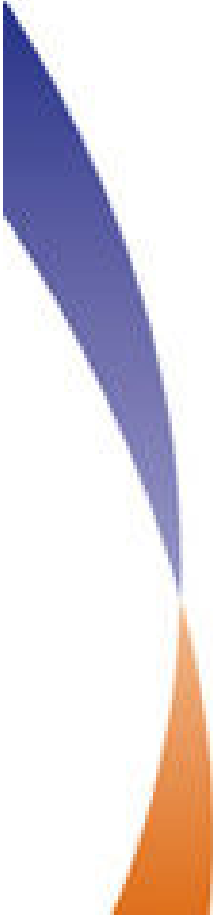
- A. Picking a good trade-mark
 - I. Distinctiveness
 - II. Searching and Clearance
 - III. Assessing Risks
- B. Registration
- C. Enforcement



A. Picking a good trade-mark

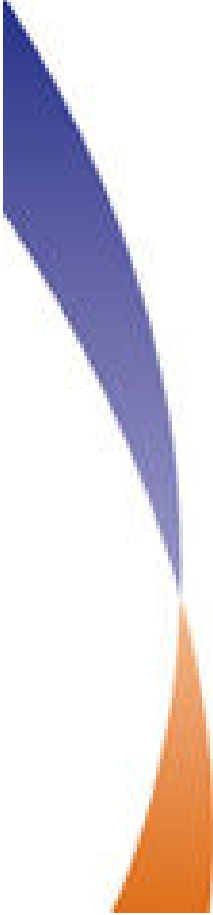
I. Distinctiveness

- ☉ Distinctiveness is the key to choosing an effective trade-mark
- ☉ The purpose of a trade-mark is to distinguish your wares and services from those of your competitors. To do so, it must be distinctive.
- ☉ Distinctiveness requires that your trade-mark:
 - ☉ Does not describe your wares and services
 - ☉ Is not confusingly similar with your competitors trade-marks
- ☉ Distinctive marks: KODAK, APPLE (for computers)



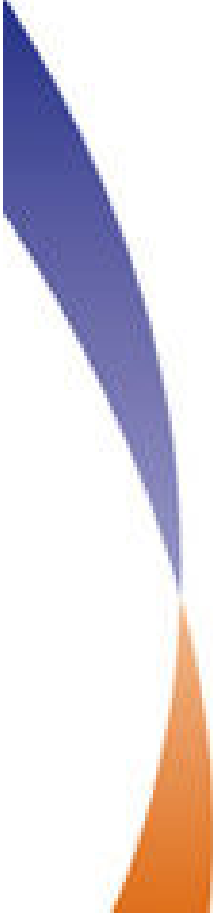
Descriptiveness

- Trade-marks law generally prohibits obtaining rights to and registering trade-marks that describe the character or quality of the wares and services with which they are used
- Reason: trade-mark owners should not monopolize words that describe wares or services
 - E.g. “safe” cars, “fresh” bread
- It is tempting to choose trade-marks that are somewhat descriptive
- However, the more descriptive your trade-mark is, the less you will be able to claim rights to it and protect it
 - E.g. “save on foods” for grocery stores



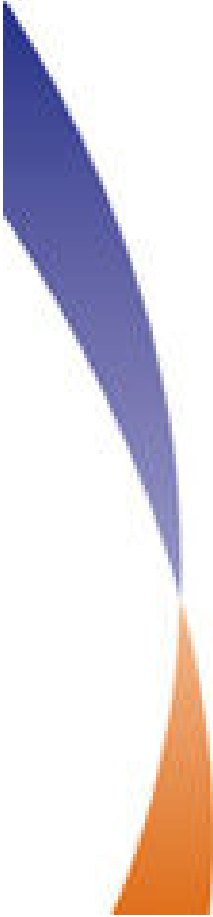
Confusion with other Trade-marks

- Trade-marks law generally prohibits the use and registration of trade-marks that are confusingly similar with those of your competitor because:
 - it creates confusion in the marketplace
 - infringes the rights of others
- It is tempting to choose marks that are somewhat confusing with established marks or that contain common elements
- Even if you are able to register a trade-mark with common elements, your ability to protect it could be compromised



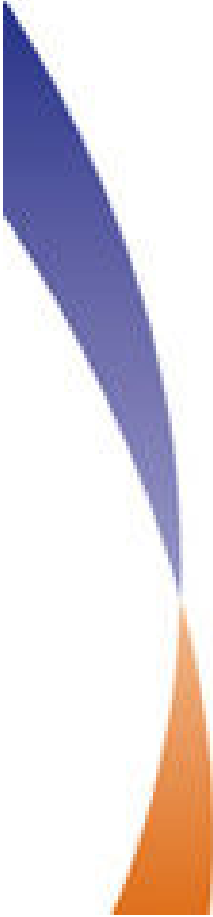
II. Searching and Clearance

- Prior to choosing a trade-mark, search the trade-marks **register** and **marketplace** to ensure that no identical or confusingly similar marks are already used, registered or applied to be registered for the same wares or services
- Best practice: come up with more than one potential trade-mark at the start of the searching process and rank according to preference



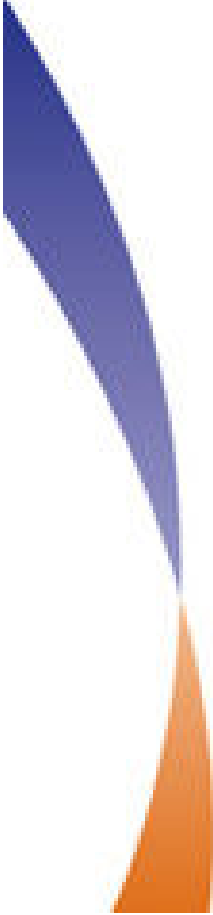
Types of Rights to Search For

- There are two types of trade-mark rights:
 - Statutory rights
 - arise from registering or applying to register a trade-mark
 - need to search the Canadian Intellectual Property Office Trade-marks Registry to find them
 - Common law rights
 - arise from use of a trade-mark in the marketplace
 - need to search the marketplace to find them
 - more limited than statutory rights



Search Tools

- The main search tools are:
 - Knock-out searches
 - Full availability searches
 - Investigations
 - Legal opinions



Knock-out Searches

- ◉ Knock-out searches are searches of registry databases
- ◉ CIPO, USPTO and other Trade-marks registry databases
- ◉ Pros
 - ◉ Quick and inexpensive
- ◉ Cons
 - ◉ Often only reveal trade-marks that contain identical elements
 - ◉ Do not reveal trade-marks that are used, but have not been applied to be registered
- ◉ Best used as a preliminary search

Knock-out Searches - Canada

The screenshot shows a Microsoft Internet Explorer browser window displaying the Canadian Intellectual Property Office (CIPO) website. The address bar shows the URL: <http://strategis.gc.ca/cipo/trademarks/search/tmSearch.do>. The page features a header with the Canadian flag and the text "Canada" and "Office de la propriété intellectuelle du Canada". Below this is a navigation menu with links: Français, Contact Us, Help, Search, Canada Site, Registration, Strategis, Site Map, What's New, and About Us. The main content area is titled "Canadian Intellectual Property Office" and "Canadian Trade-marks Database". It includes a notice that the database was last updated on 2005-09-20 and instructions on how to perform a search. The search interface consists of two input fields: "Enter search text:" and "Select search field:" (with a dropdown menu set to "TM Lookup"). There are "Search" and "Reset" buttons. The bottom of the page has a footer with various links: CIPQ Home, Patents Database, Decisions of the Commissioner of Patents, Trade-marks Main Page, TRADE-MARKS DATABASE, Help, Disclaimer, and Copyrights Database.

CIPO - Canadian Trade-marks Database - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites Media

Address <http://strategis.gc.ca/cipo/trademarks/search/tmSearch.do> Go Links

Canada
Office de la propriété intellectuelle du Canada

Franglais Contact Us Help Search Canada Site Registration
Strategis Site Map What's New About Us

Canadian Intellectual Property Office

Canadian Trade-marks Database

Notices

The database was last updated on: 2005-09-20

Enter words/numbers in the text box and select field from the drop down menu. There are five searches you can enter criteria for.
Click here for [Help on Search](#), [Help on Fields](#), or [Help on Operators](#)

Search 1

Enter search text:

Select search field:

Search Reset

Start Internet

strategis.gc.ca
CIPO OPIC

CIPO Home
Patents Database
Decisions of the Commissioner of Patents
Trade-marks Main Page
TRADE-MARKS DATABASE
Help
Disclaimer
Copyrights Database

Start Internet

Connec... Fasken ... Docum... OM_VA... CIPQ - ...

7:47 AM

Knock-out Searches - US

Trademark Electronic Search System (TESS) - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Search Favorites

Address <http://tess2.uspto.gov/bin/gate.exe?f=search&state=vc01r.1.1>

United States Patent and Trademark Office

Home Site Index Search FAQ Glossary Guides Contacts eBiz alerts News Help

Trademarks > Trademark Electronic Search System (TESS)

TESS was last updated on Wed Apr 9 04:10:56 EDT 2008

TESS HOME STRUCTURED FREE FORM BROWSE DCT SEARCH OG BOTTOM HELP

WARNING: AFTER SEARCHING THE USPTO DATABASE, EVEN IF YOU THINK THE RESULTS ARE "O.K.," DO NOT ASSUME THAT YOUR MARK CAN BE REGISTERED AT THE USPTO. AFTER YOU FILE AN APPLICATION, THE USPTO MUST DO ITS OWN SEARCH AND OTHER REVIEW, AND MIGHT REFUSE TO REGISTER YOUR MARK.

View Search History: [v]

☒ Plural and Singular ☐ Singular

☒ Live and Dead ☐ Live ☐ Dead

Search Term: []

Field: [Combined Word Mark (BI, TILMP, TL)]

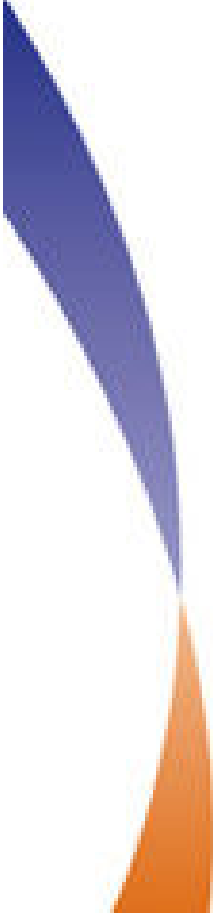
Result Must Contain: [All Search Terms (AND)]

[Submit Query] [Clear Query]

[Logout] Please logout when you are done to release system resources allocated for you.

This **New User (Basic)** search form allows for searching of the most commonly searched fields: word marks, serial or registration numbers, and owners. The **Combined Word Mark** is the default search field and includes the **word mark** and **translation**.

Start Internet Trademark EL... Microsoft Powe... Microsoft Word Fasken Martineau... 7 Reminders Inbox - Microso... Fasken Martineau... Microsoft Word 2:17 PM



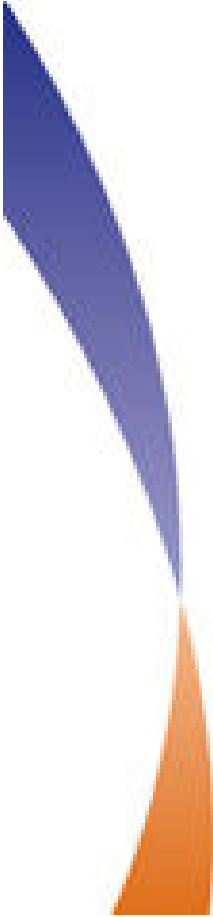
III. Assessing Risks

- ⦿ Most searches reveal some measure of risk in proceeding with a trade-mark
- ⦿ To assess risk, consider
 - ⦿ Degree of resemblance between the trade-marks
 - ⦿ Overlap in wares and services
 - ⦿ The nature of the trade for the wares or services
 - ⦿ How long and extensively the other party has used its trade-mark
- ⦿ The resources and expected vigilance of the other party



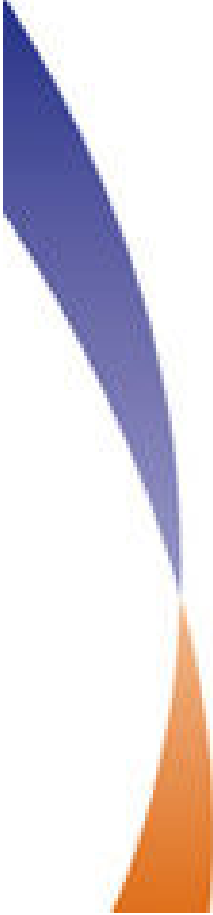
Assessing Risks

- If you choose the wrong trade-mark, you risk:
 - Liability for infringing the rights of others
 - Inability to protect your trade-mark
 - Costly and inconvenient rebranding
 - Loss of goodwill



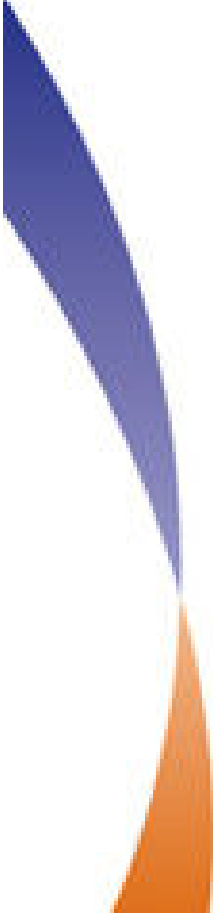
B. Registration

- Registration is by country (except EU)
- Canada:
 - One and a half years average for registration
 - \$2,500 (no objections, oppositions)
 - 15 year renewable registration period
- Prioritize countries by value of market and likelihood of sales



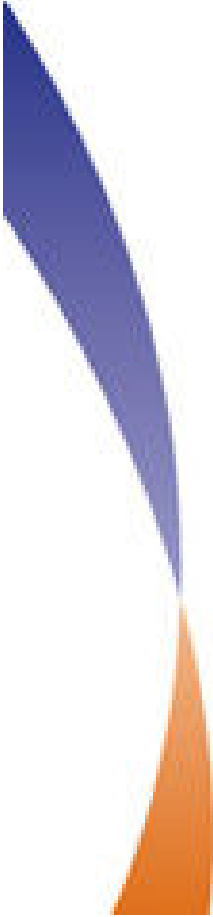
Rights arising from registration

- Exclusive use of trade-mark throughout Canada with the registered wares and services
- To prevent others from using an identical or confusingly similar mark in Canada with the same wares and services
- To prevent others from using the trade-mark in a manner that is likely to depreciate the goodwill attached to the trade-mark



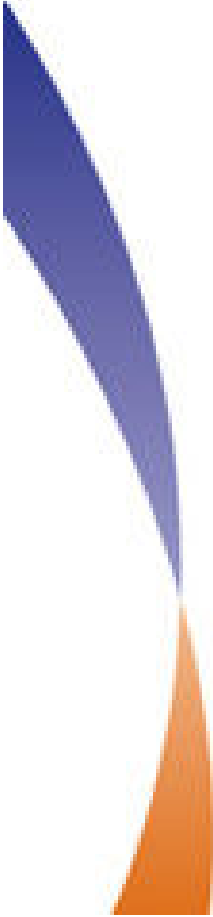
Pitfalls

- © Trade-mark registrations can be challenged and expunged for non-use
- © Trade-mark rights can be lost if others use the trade-mark without a proper license
- © Trade-mark rights can be lost if the trade-mark becomes a product description (thermos)



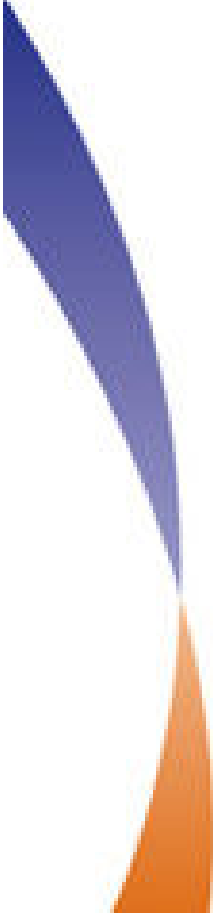
C. Enforcement

- Keep an eye out for possible infringement of your rights, by
 - Monitoring your market and related markets for trade-marks that are similar to yours
 - Monitoring trade-mark registries for attempts to register marks that are similar to yours
 - You can order regional and global watch services to alert you of such attempts



Enforcement

- Take action against infringements and potential infringements
 - Cease and desist letters
 - Litigation
 - Opposition
- Failure to act can weaken your trade-mark rights



Trade-marks Management

- ☉ Pick the right trade-mark
 - ☉ Consider more than one potential trade-mark
 - ☉ Avoid trade-marks that are descriptive or similar to other trade-marks used in your industry
 - ☉ Search the marketplace
 - ☉ Assess risks before proceeding
- ☉ Register trade-marks where you plan use
- ☉ Use it or lose it
- ☉ Keep an eye out for infringers

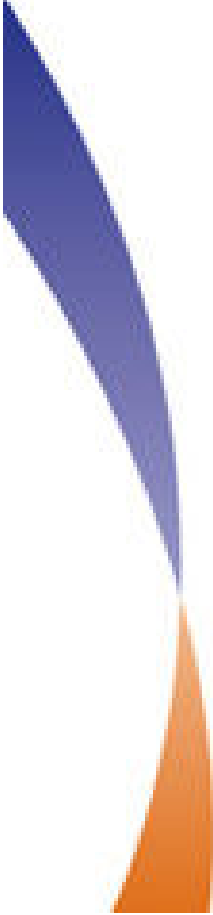
☉ **Bonus tip: use fewer trade-marks**



Trade-mark Questions?

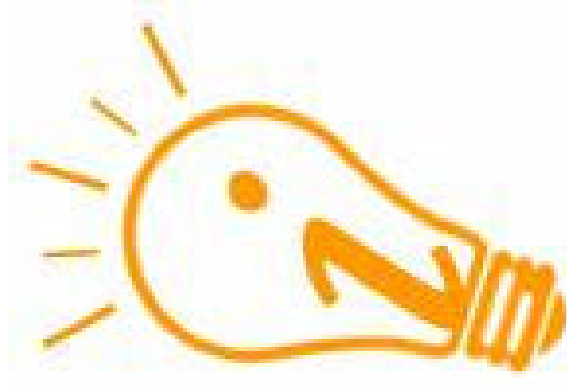
PATENTS

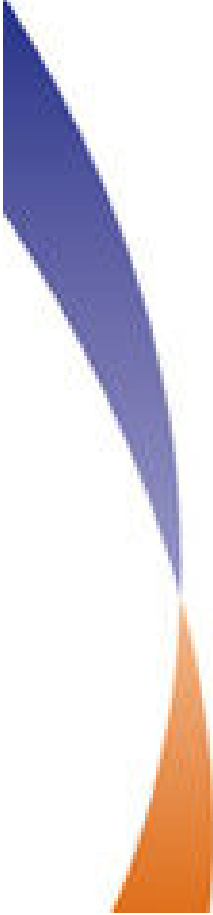




You Have an Idea – What Next?

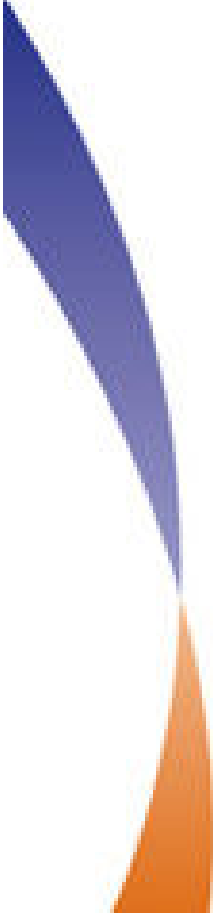
- Your business has an idea, i.e. “something” that makes your product or service better/cheaper/faster
- Your goal – to prevent competitors from using that idea





The Problem

- ⦿ If you disclose your idea to the public, others can use it unless.....
- ⦿ You obtain a patent



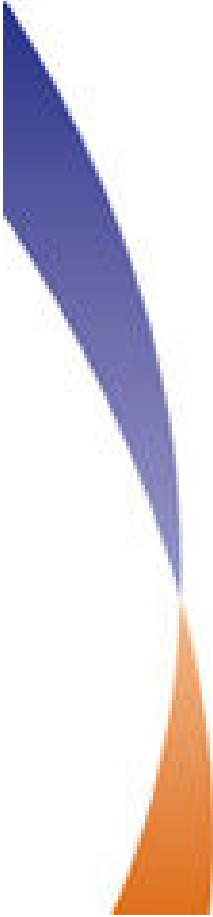
Why a Patent?

- Gives you the right to prevent others from making, using, selling the claimed invention
- Lasts 20 years from filing date
- In exchange – you have to disclose your idea
 - Eventually it will become public domain



What You Don't Get With a Patent

- ⦿ What doesn't a patent grant?
 - ⦿ The right to make, use or sell the claimed invention.
 - ⦿ Government enforcement of patent rights (only through courts)



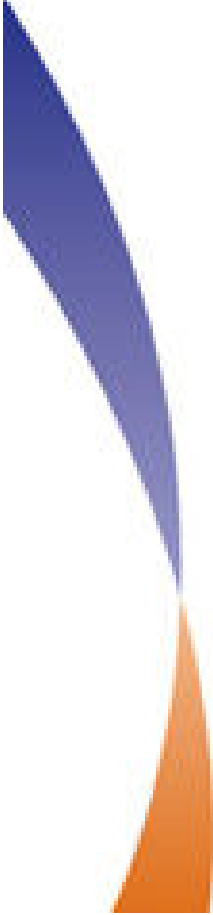
Steps in Obtaining Patent

- Secrecy
- Patentability
- First Filing
- Other (International) Filings
- Exploiting your Patents



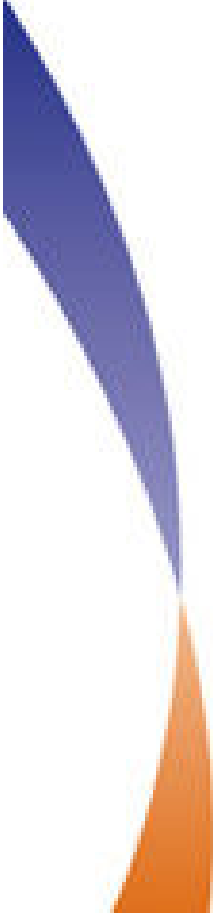
Secrecy Issues – KEEP THE SECRET!

- Public disclosure of invention prior to filing may be used against the application
- Use NDAs etc., prior to filing. After filing, can disclose contents of application
- Canada and US give one year grace period - most countries don't



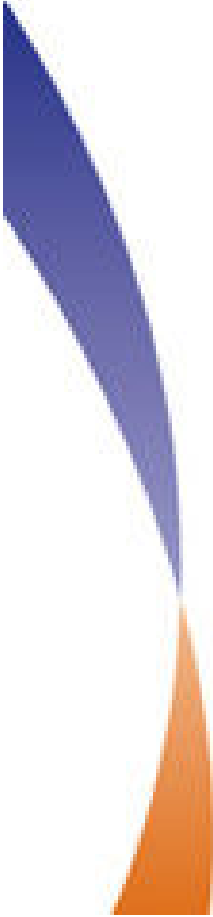
Considering a Patent

- ⦿ Not everything is patentable
- ⦿ Requirements for Invention to be Patentable
 - ⦿ Novelty - the invention is “new”
 - ⦿ Non-obvious – the invention not a minor tweak on what has been done before
 - ⦿ Utility – the invention does what it is described to do
 - ⦿ Subject Matter



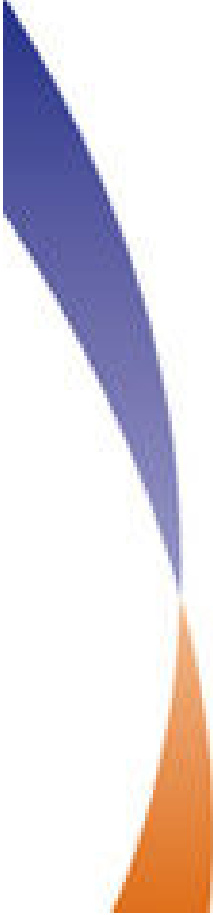
Novelty

- The invention must be “new”
- Your own publications and prior patents can be used against you
- Patent Searching – can save significant costs if you find out early that you can’t obtain a patent
 - Places to search – USPTO, EPO, JPO
 - Can search yourself online



Obviousness

- Test: Invention can't have been obvious to a person "skilled in the art"
- A bit of a "grey area" – the legal tests are largely judgment calls
- Search can help make determination



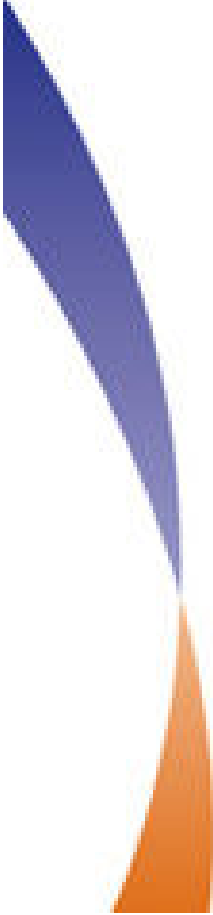
Subject Matter

- Traditional:
 - Pharmaceuticals, Electronics, Chemicals
- Less traditional:
 - Games
 - Software
 - Business Methods – Bilski decision
- You may be surprised what is patentable



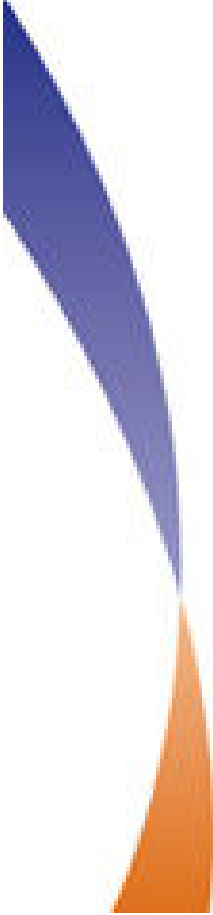
The First Filing

- 🌀 Preparing the Application
 - 🌀 Work with your agent
 - 🌀 Provide detailed description
 - 🌀 Remember you know this area of technology better than they do
- 🌀 If cost is an issue, consider a provisional application
- 🌀 First to invent (US) vs. first to file



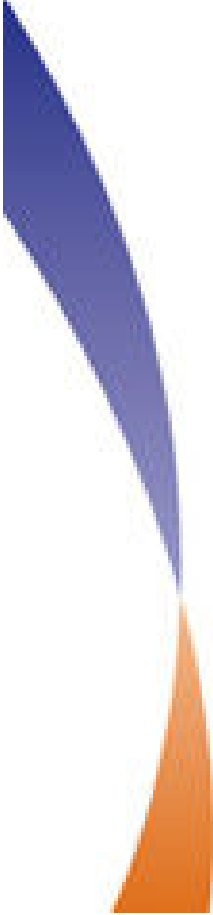
Where to File?

- Patents are territorial, i.e. a U.S. patent only covers activities in the U.S.
- Problem: Filing in multiple jurisdictions gets very expensive (> \$100,000 very quickly), however your own applications and disclosure may be used against you if you wait
- Solution: Take advantage of treaties.



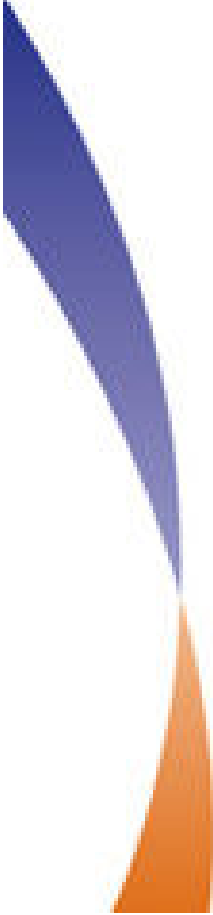
Claiming Priority

- International Treaties allow an applicant to file a first application, then file applications up to one year later and “backdate” the later filed applications
- Can used to defer costs
- First application may be a provisional
- Allows you to make invention public after first filing



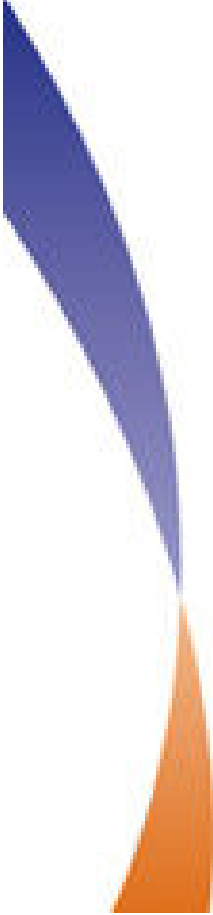
PCT Applications

- Closest thing to “world patent” application (covers most major industrial countries)
- Treated as a pending application in all selected member countries
- Still requires entry into those countries within 2 ½ years – just defers cost



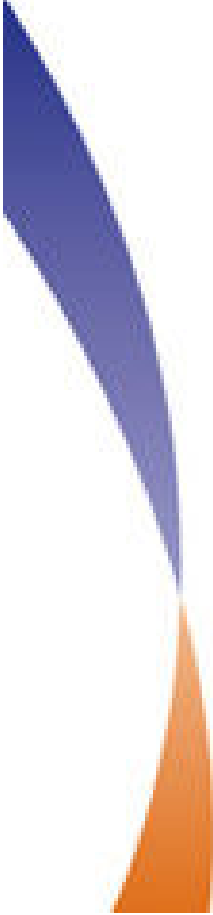
Provisional Applications

- Only serve as an initial filing for the purposes of claiming priority – they will never become a patent
- Can be less expensive than a regular application
- Useful when invention is in development (can file multiple provisionals)
- BE CAREFUL – need to ensure provisional contains enough to preserve priority claim



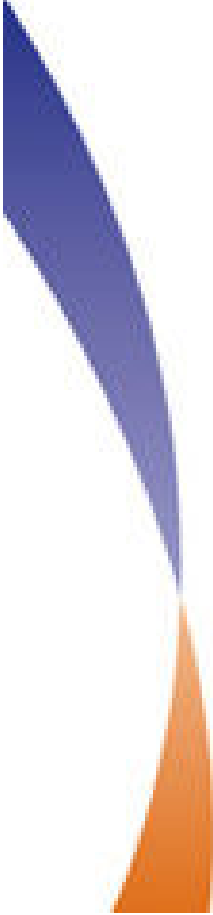
Common Strategy

- Goal – Delay costs as much as possible while preserving rights
- 1. File Provisional Application
- 2. One year later, file PCT Application
- 3. Two and a half years from provisional application, enter national phase in selected jurisdictions
- DISADVANTAGE – Delays obtaining patents



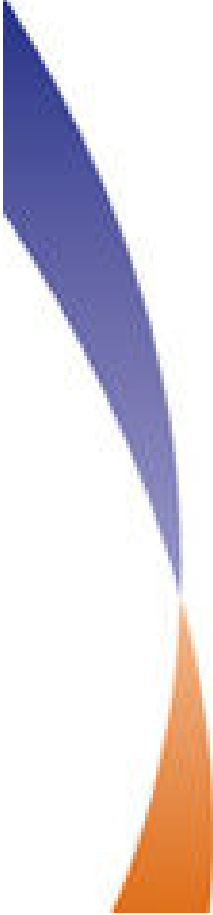
Exploiting Your Patents

- Are an asset – have value
- Can be used to create monopoly
- Licensing revenue (become a troll?)
- Defensive portfolio
- Patent role varies widely in different industries and positions of company



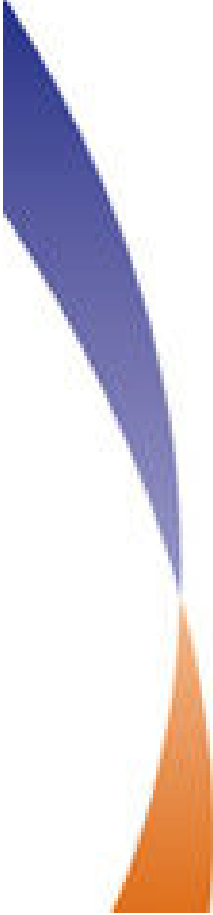
Patents as asset

- Can be sold (as can pending applications)
- Value varies – scope of claims, validity
- Sometimes allows early stage company to be taken more seriously
- Investors may insist on filings



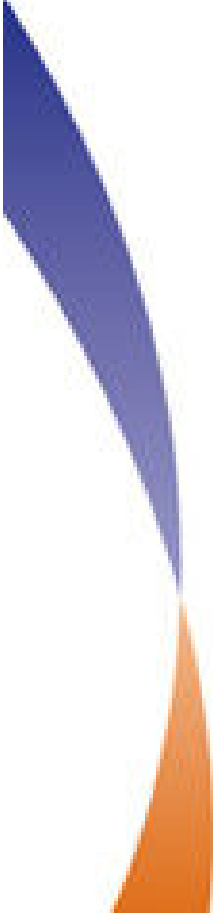
Monopoly

- Prevent competitors from participating (never license)
- Requires willingness to litigate (which risks patents)
- Used to protect “key product or feature”



Defensive portfolio

- Hold large portfolio of patents
- Don't litigate with patents unless defending self
- Large budget for filing/prosecuting, less for litigation
- Microsoft strategy



Licensing

- “Toll collection”
- Willing to license at reasonable rates (IBM)
- Some companies do nothing else (often referred to as “trolls”)



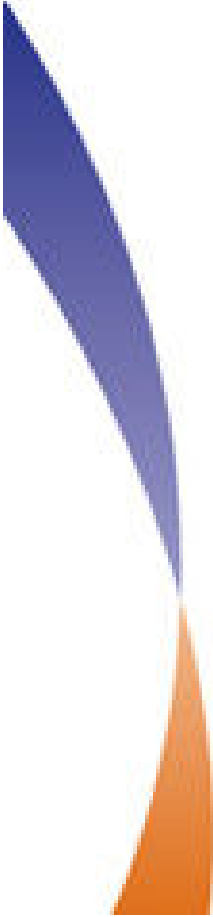
Patent Problems

- Cost – they are expensive to obtain, maintain and enforce
- Publication – the subject matter becomes public
- Limited duration – twenty years and then your idea becomes public domain
- Other alternatives....



Patent Questions?





Trade Secrets

- Trade secrets:
 - Information of commercial value that is not disclosed to the public
 - The value has to be partially linked to the fact that it's not known
 - Efforts have to be made to maintain secrecy



Examples of Secrets

- Technology
- Formulas, recipes
- Client/Customer information
- “Know how”



Reasonable Efforts to Maintain Secret

- 🕒 **CONTRACTS!** Everyone who knows secret should be under a contractual obligation to keep it secret
 - 🕒 Use Non-disclosure Agreements
- 🕒 **Other steps:**
 - 🕒 Mark documents as confidential
 - 🕒 Control access to documents
 - 🕒 Lock doors and cabinets

Advantages of Trade Secrets

- Never expire – as long as the secret remains secret
- No filings or government approval required
- Can be very successful – Coke, KFC



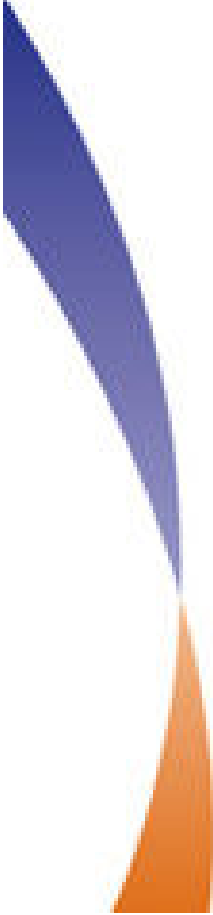


Disadvantages of Trade Secrets

- Not everything can be protected – e.g. technology can be reverse engineered
- If the secret is exposed, then it's no longer a secret
- Can be expensive to maintain, as it requires security, contracts, complicated processes



Trade Secret Questions?



I. Commercialization Models

- How will you commercialize your IP?

- Three main approaches*:

- 1. Integrator
- 2. Orchestrator
- 3. Licensor

- *“Innovating for Cash”, J. Andrew and H. Sirkin, Harvard Business Review, September 2003



Commercialization Models

- 1. Integrator
 - Manage all the steps necessary to profit from an idea (product development, manufacturing, sales)
 - Capital intensive
 - High capability requirements
 - Slow
 - Often impossible, but remarkably popular



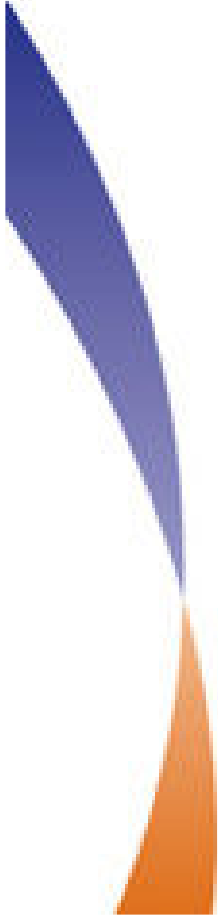
Commercialization Models

- ② 2. Orchestrator
 - ② Focus on some steps, but rely on others to carry out the rest (e.g. outsource manufacturing, distribution, sales)
 - ② Requires strong project management skills
 - ② Quicker to market
 - ② Balances control with need to leverage limited resources

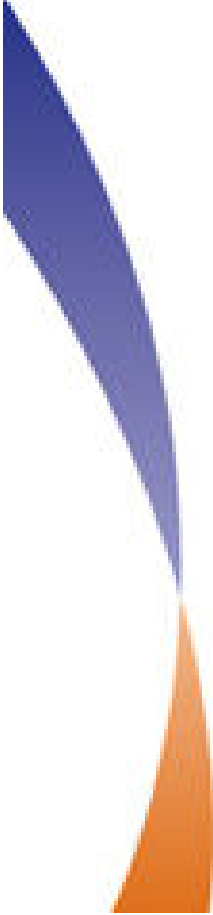


Commercialization Models

- 3. Licensor
 - License the technology to others to take it to market
 - Low capital and capability requirements
 - Requires strong IP protection
 - Requires good contracting skills
 - Allows innovators to focus on what they do best

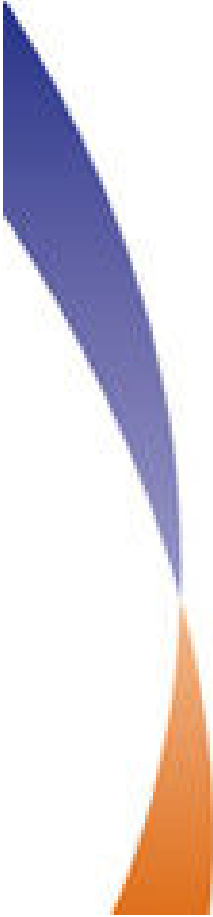


Questions?



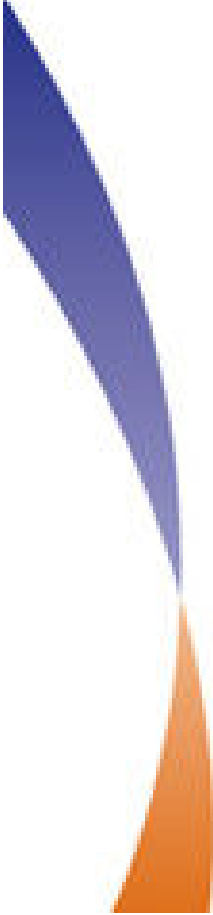
II. Assignments

- 🌀 Introduction
 - 🌀 Intellectual property may be assigned or licensed
 - 🌀 Assignments and licenses differ in fundamental ways
 - 🌀 An assignment changes the ownership in the IP from the assignor to the assignee



Assignments

- ⦿ Preferred to a license by IP purchaser, investors and acquirers
 - ⦿ IP becomes an asset of the assignee
 - ⦿ not affected by assignor bankruptcy
- ⦿ IP owners prefer to license technology
 - ⦿ IP continues to be owned by licensor
 - ⦿ Greater control over IP

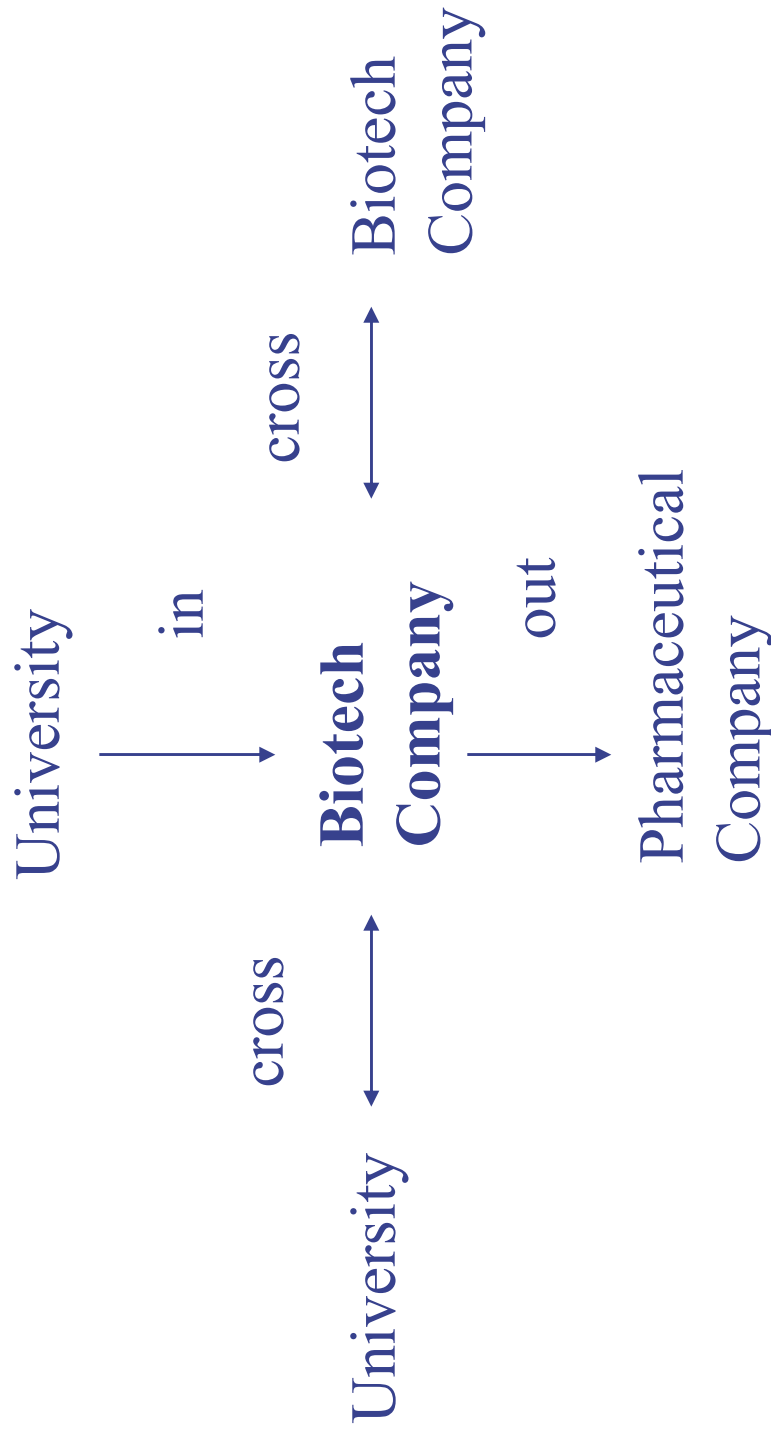


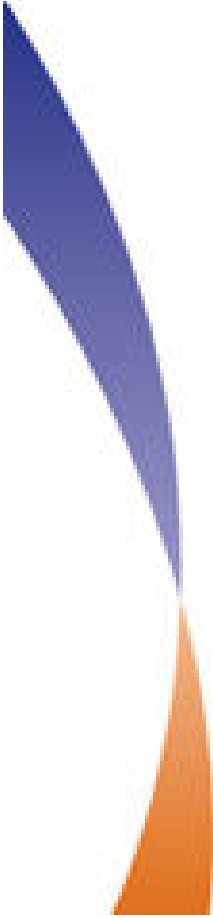
Licenses

- ◉ License is a special form of contract
- ◉ Licensor retains ownership of the IP
- ◉ Licensee can use the IP on the terms specified in the license
- ◉ Few limits on possible license terms
- ◉ A license agreement may be implied, but should be in writing



Licenses





Licenses: main provisions

- 🕒 Term
- 🕒 Exclusivity
- 🕒 Scope of use
- 🕒 Territory
- 🕒 Fees
- 🕒 Modifications/improvements
- 🕒 Transferability
- 🕒 Indemnifications
- 🕒 Termination

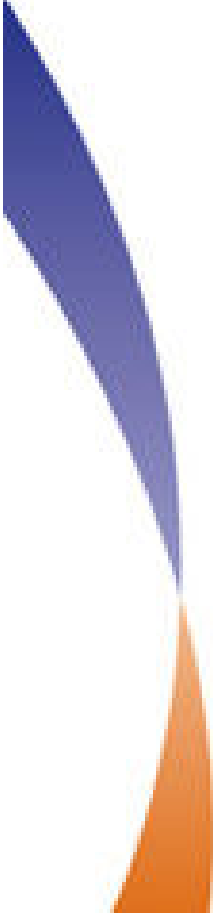


Licenses

☉ Term

- ☉ The length of time of the license should be specified
- ☉ Could be for duration of patent or copyright
- ☉ Strategic considerations might come into play
 - ☉ Shorter term if licensor doubts licensee's ability
 - ☉ Longer term if commercialization requires significant investment

☉ **Trap alert: know-how license term**



Licenses

- 🕒 Exclusivity
 - 🕒 Must be in writing
 - 🕒 Exclusivity represents an extra value (monopoly)
 - 🕒 Only sign an exclusive license agreement if you know and trust the licensee
 - 🕒 Competitive advantage vs. freedom to operate
 - 🕒 Consider performance/anti-shelving provisions



Licenses

- Scope of use
 - Scope of use defines what the licensee can do with the IP
 - Different applications of IP can be licensed separately with different scopes of use
 - The scope of use needs to be clearly defined in order to avoid disputes and implied licenses
 - In general, the licensee is only entitled to use the work for purposes that have been specified in the license



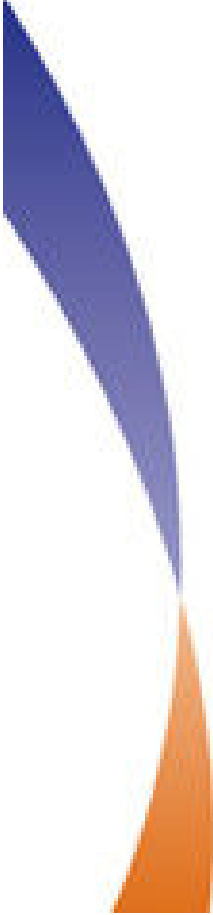
Licenses

- ◉ Scope of use
 - ◉ Examples:
 - ◉ Use of software for own use, but not for duplication and sale
 - ◉ Use of a mechanical device in one industry, but not others
 - ◉ Use of a biological compound for a particular indication, but not others
 - ◉ Movie adaptation of copyrighted work, but not for play
 - ◉ Use of technology for academic research, but not commercial use



Licenses

- Territory
 - Can be worldwide or limited by country, province, state or other geographic description
 - The breadth of a Licensee's territory can reflect the Licensee's ability in various regions
 - Generally speaking, the broader the Territory, the higher the price



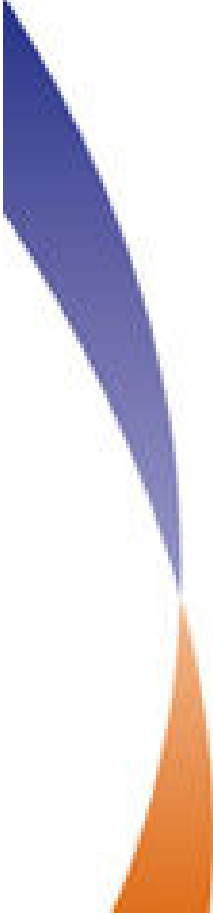
Licensing

- Granting provision that addresses term, exclusivity, scope of use and territory:
 - “Licensor hereby grants to Licensee a perpetual, exclusive, worldwide right and license to use the X15 Antibody for the treatment of lung cancer.”



Licenses

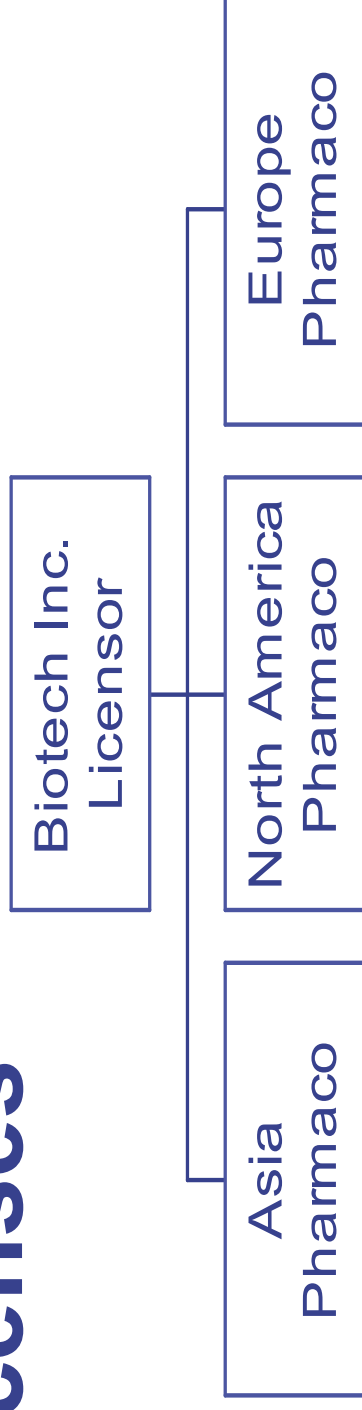
- 🕒 Fees
 - 🕒 Fixed fees
 - 🕒 Milestone payments
 - 🕒 Royalties
 - 🕒 Shares in the capital of the licensee
 - 🕒 Consider cash flow needs and risk/reward calculations to determine the right mix

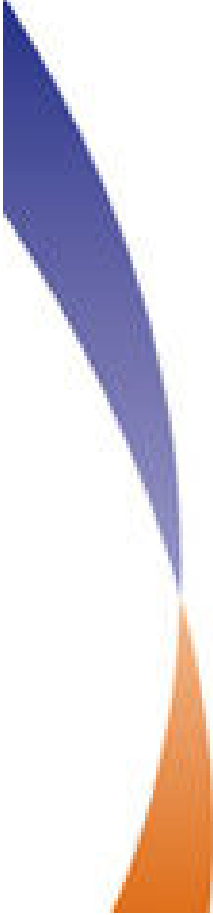


Licenses

- Modifications/improvements
 - Is the licensee entitled to modify the IP or not?
 - If modification is permitted, who owns modifications?
 - Licensors usually want to own all IP relating to the core IP
 - Modifications may be inherent to the use that will be made of the work, e.g. update of websites
 - If licenses exist in separate territories, all parties might benefit from cross licensing of improvements

Licenses

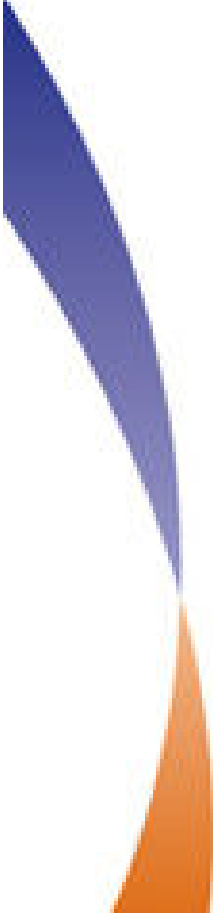




Licenses

Transferability by Licensee

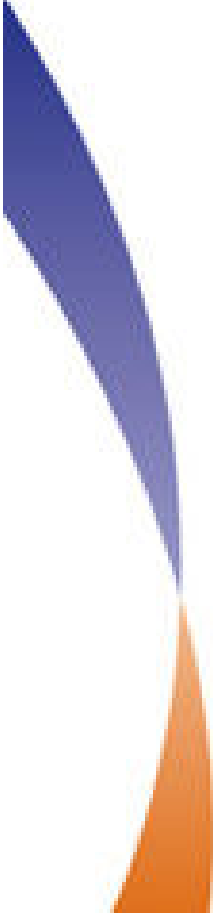
- Is it possible for the licensee to transfer or sublicense its rights to a third party?
- Licensee might want to control who can receive a transfer or sublicense
- Licensee might want to control the form of sublicense agreement
- Usually requires written consent
- Sublicensing might affect payment terms



Licenses

Indemnification

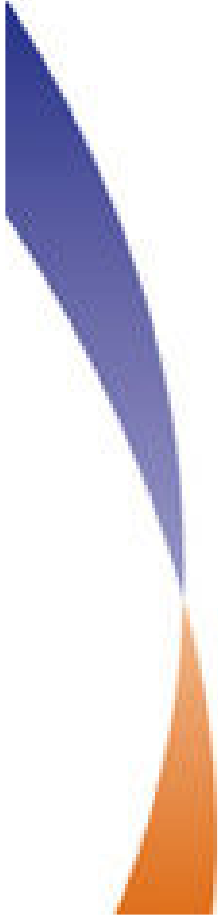
- “The Licensor shall indemnify and hold harmless the Licensee against . . .”
 - Claims arising from third party IP infringement
- “The Licensee shall indemnify and hold harmless the Licensor against . . .”
 - Claims arising from Licensee’s activities in respect of the licensed IP (e.g. product liability)



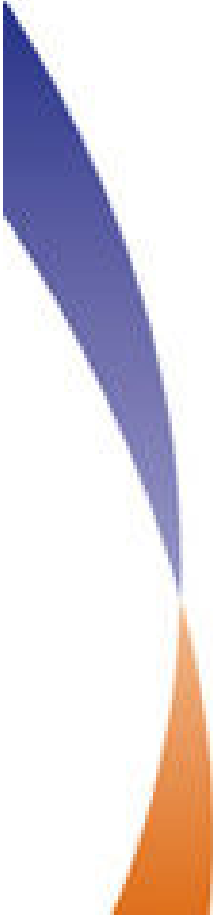
Licenses

Termination

- Under what conditions will the license terminate
 - Failure of Licensee to perform
 - Breach of the terms of the license agreement
 - Bankruptcy of either party
 - By mutual consent

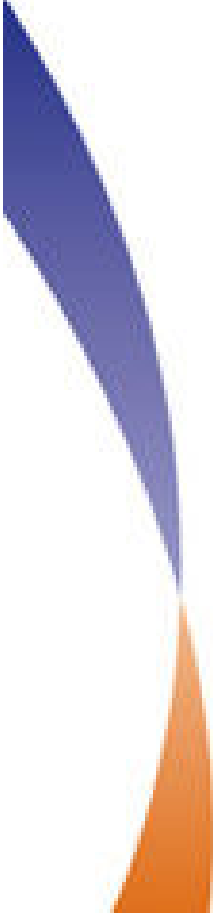


Questions?



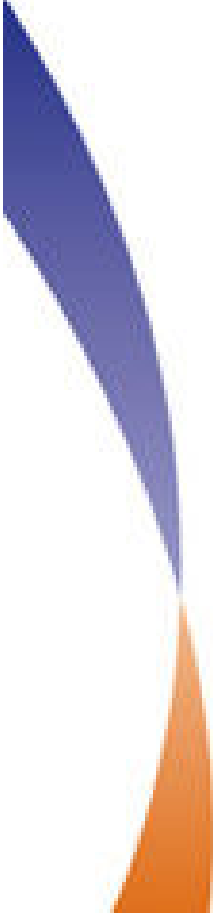
Start Good IP Management Practices Now

- Keep Good Records
- Desired Outcomes
 - Easier to raise investment capital
 - Discourage competition
 - Avoid Litigation



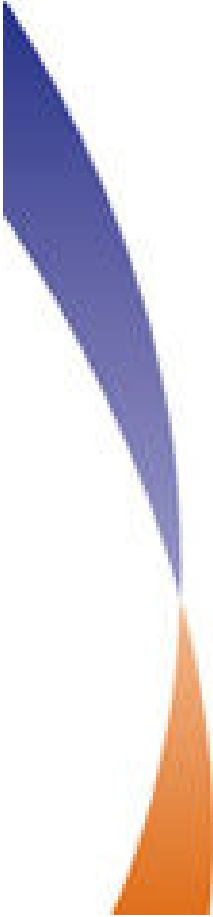
Good IP Management Practices

- Record Keeping Policy
- Security Policy
 - Physical
 - Systems
- Consulting Agreements
- 3rd Party Agreements
 - Non-Disclosure
 - Secrecy
 - Confidentiality



Good IP Management Practices

- Employee Agreements
 - Prior Employment
 - Confidentiality
 - IP Assignment
 - Waiver of moral rights
 - Non-compete provisions
- Exit Interviews



Due diligence binder

- 🕒 Corporate Documents
- 🕒 Human Resources Documents
 - 🕒 Employee Agreements
 - 🕒 Contractor Agreements
- 🕒 IP Documents
 - 🕒 Assignments
 - 🕒 Patent Applications/Issued
 - 🕒 Patentability and freedom-to-operate opinions
- 🕒 3rd Party Contracts
 - 🕒 Non-disclosure agreements
 - 🕒 Licenses and assignments
 - 🕒 Material transfer agreements

