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# Lean Intellectual Property Rights (IPR) Protection: Maximizing IPR Portfolios While Minimizing Costs

by

**Carlos R. Villamar, J.D., M.S.E.E., B.S.E.E.**

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March 14, 2019

# US Patent System & Common Pitfalls

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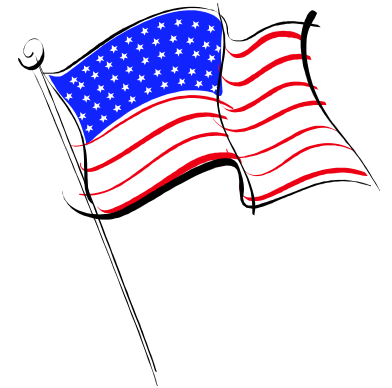
## •Distinguishing features of US Patent system:



- Now a first inventor to file with grace period system
- Applicant is the inventor and not the company or university
- Overview of US Patent Office climate

## •Common pitfalls for start ups and universities:

- Missing the boat on IP protection
- Letting your patent sink with the inventorship
- Creating the joint venture nightmare scenario



# Maximizing IP & Minimizing Cost

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## • Maximizing IP:

- Do your due diligence
- Split up system and subsystems into separate applications
- Picket fence approach to IP protection



## • Minimizing IP Costs:

- Prepare patent-like disclosures to minimize attorney time
- Work with an experienced attorney
- Interview patent cases with examiner early and often



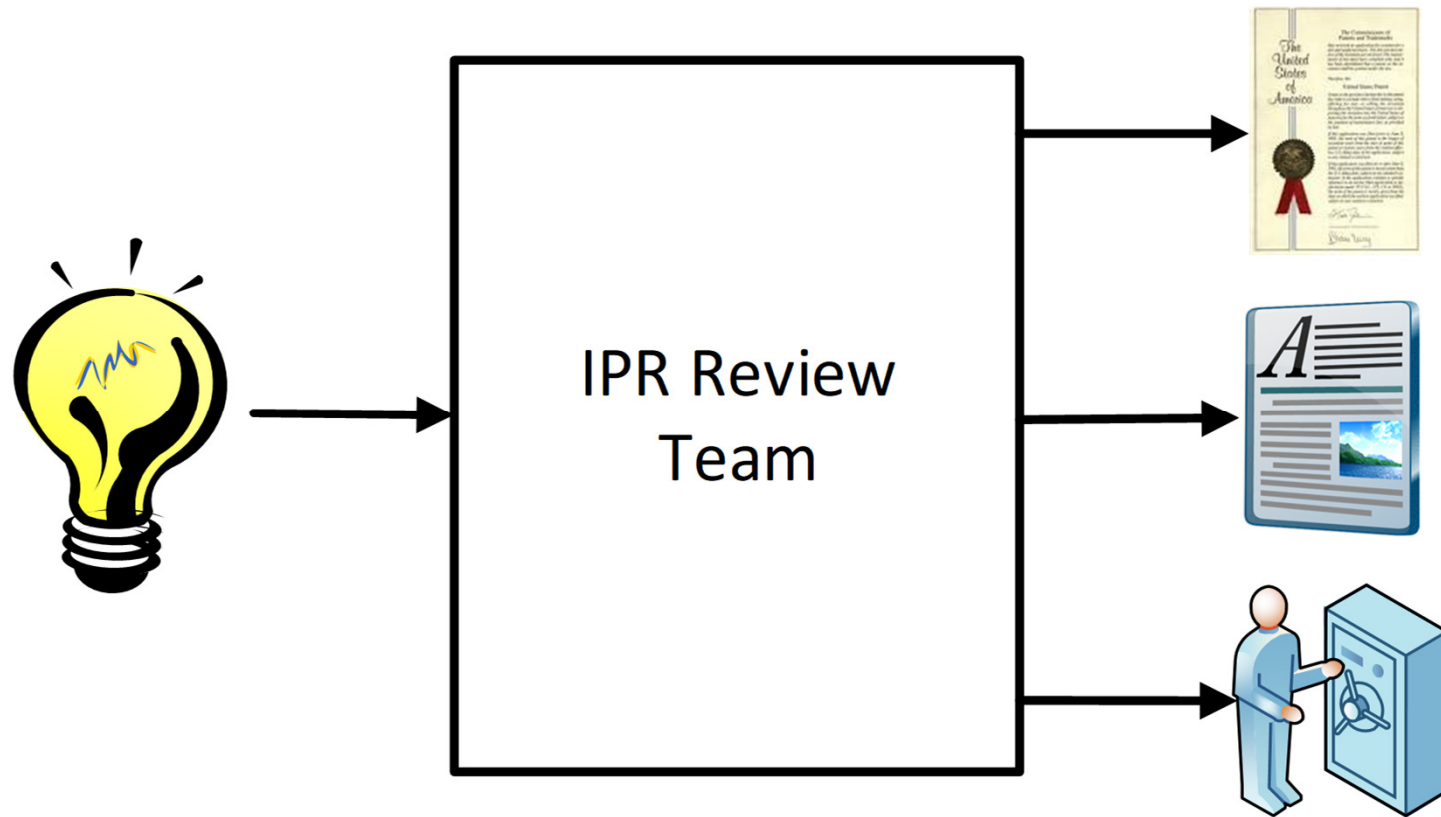
# IP Umbrella

• IP protection can come in various forms:

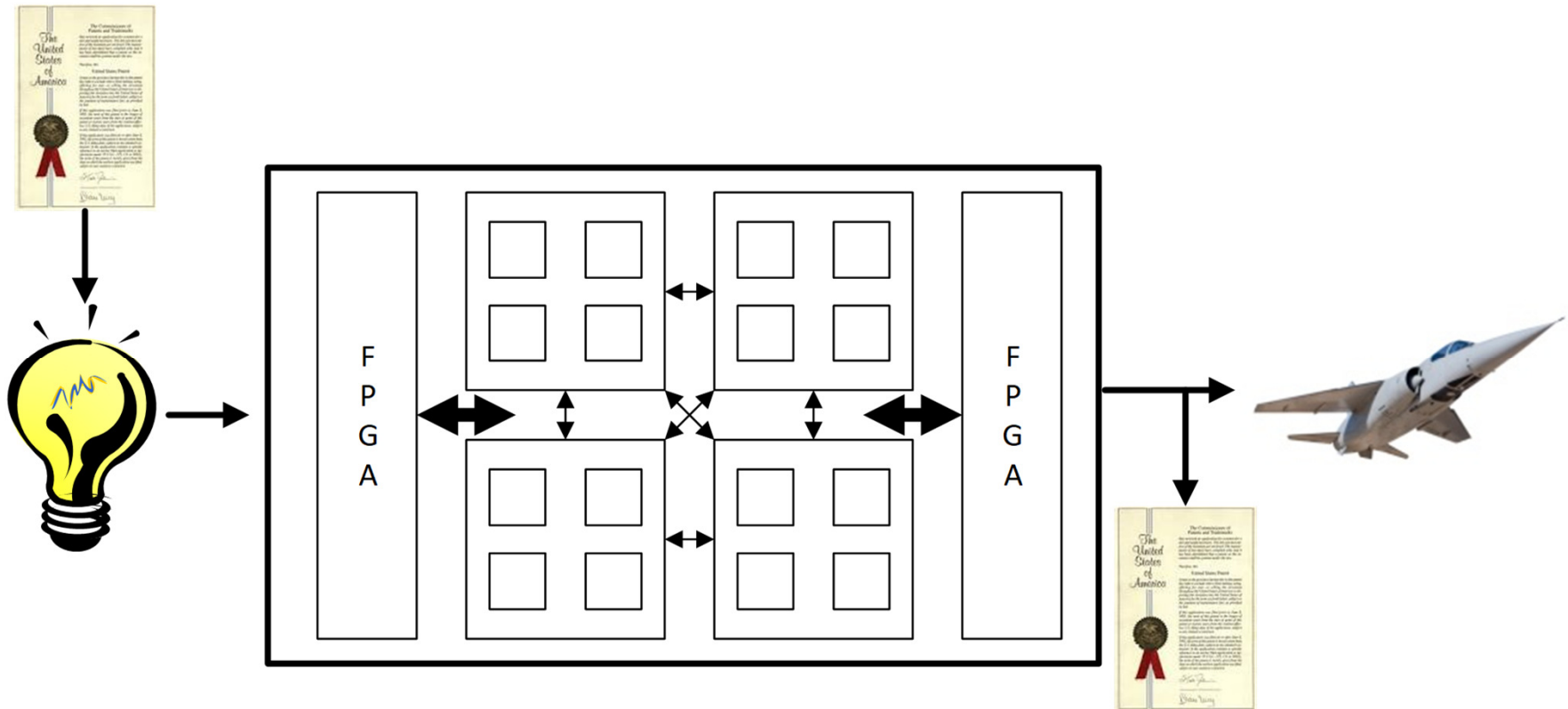
- Trade secrets
- Copyrights
- Trademarks
- Patents
- Licensing



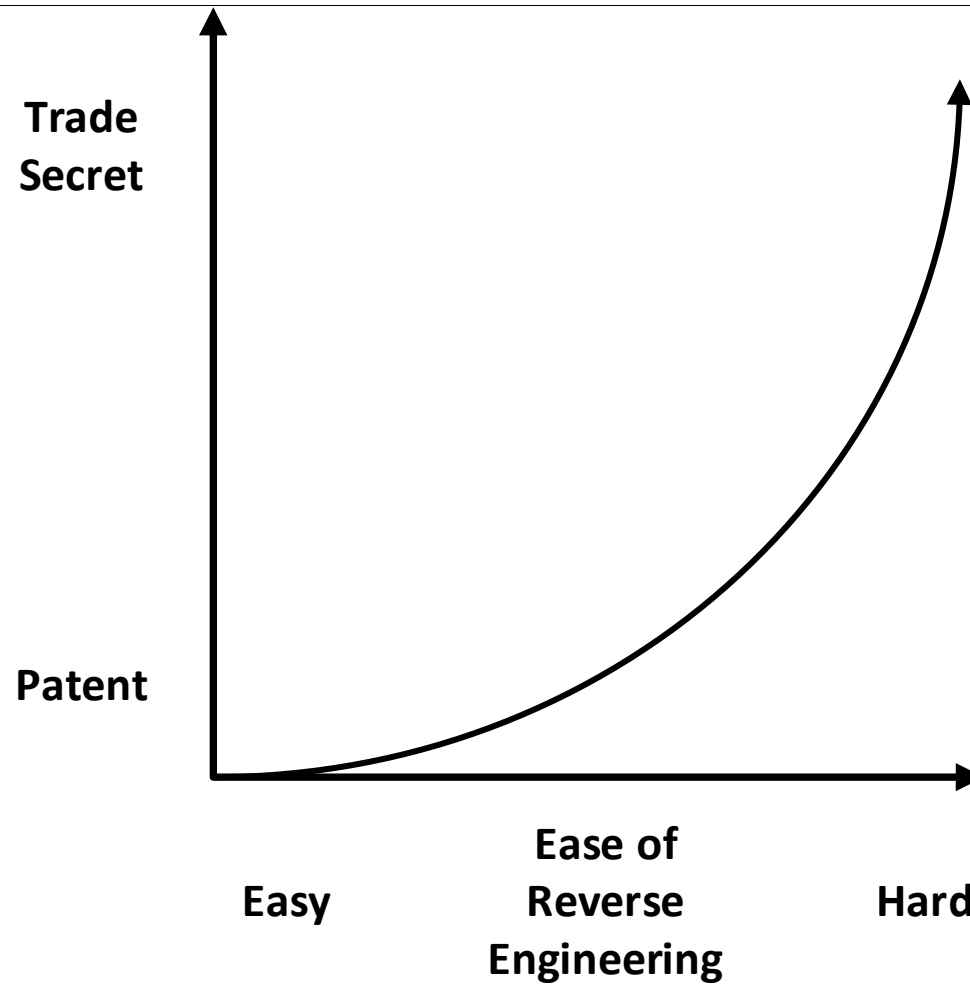
# IPR Review Process



# Innovation Process: From Napkin to Airplane

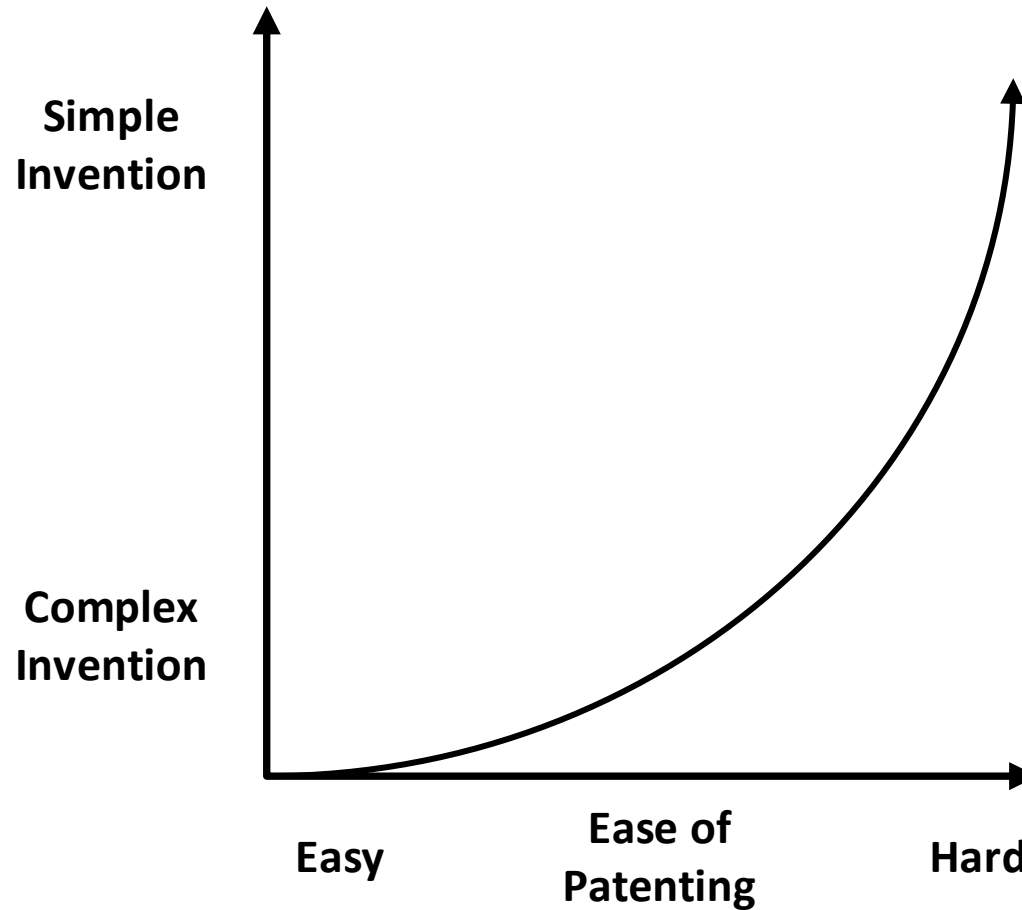


# Patenting versus Trade Secrets

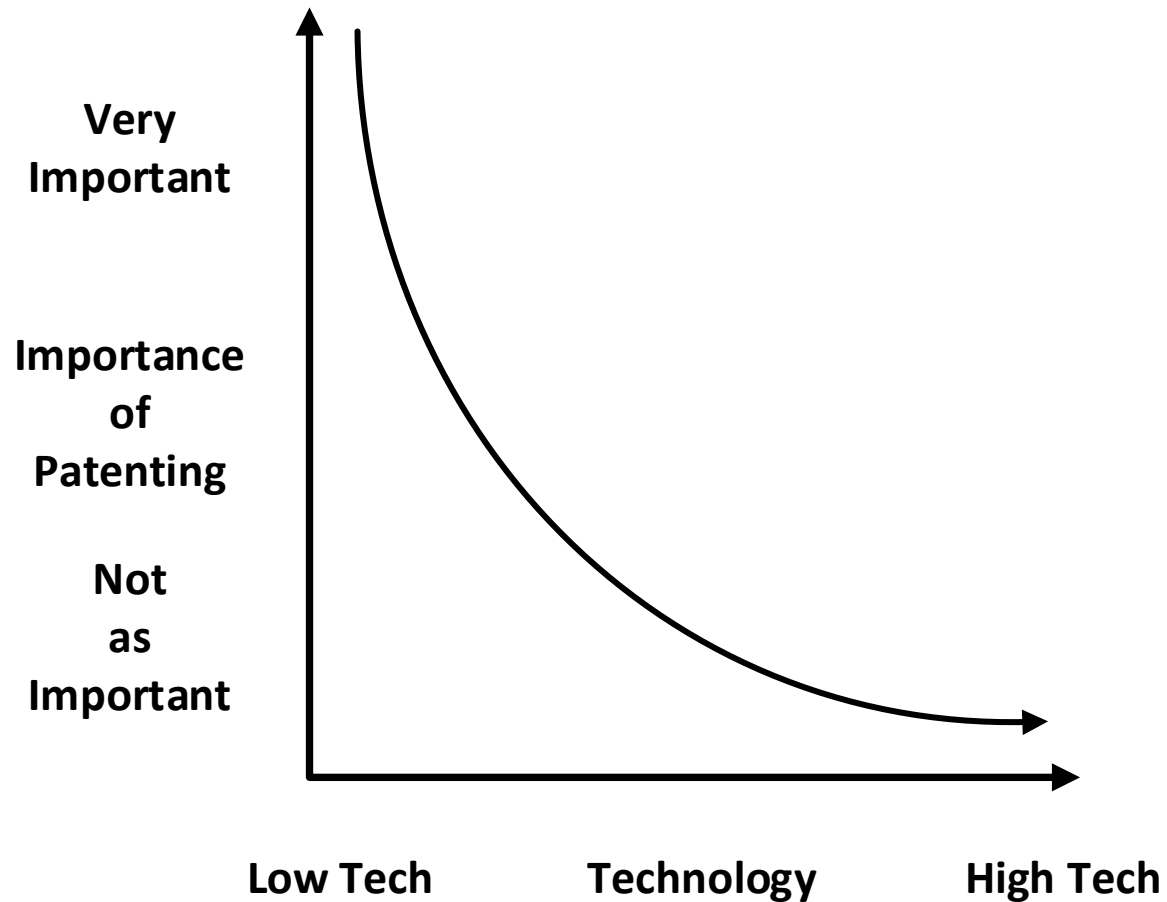


# Ease of Patenting versus Complexity of Invention

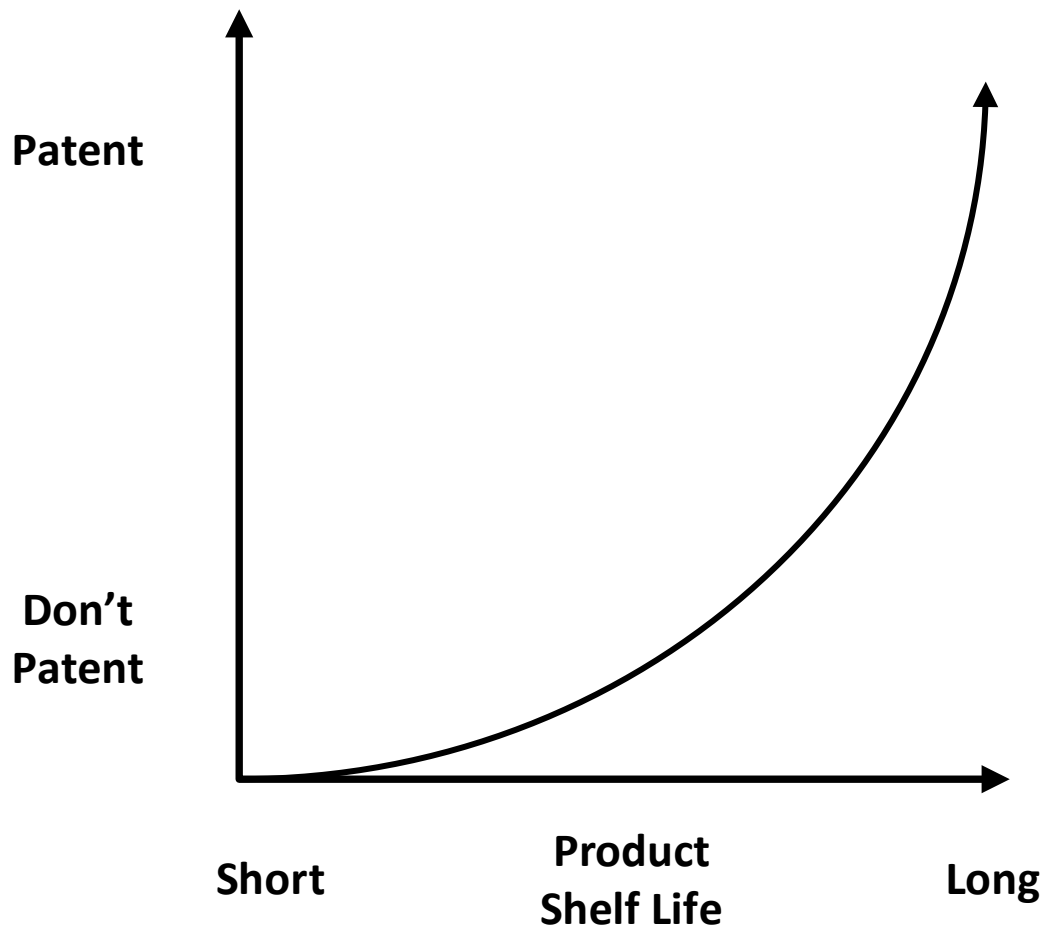
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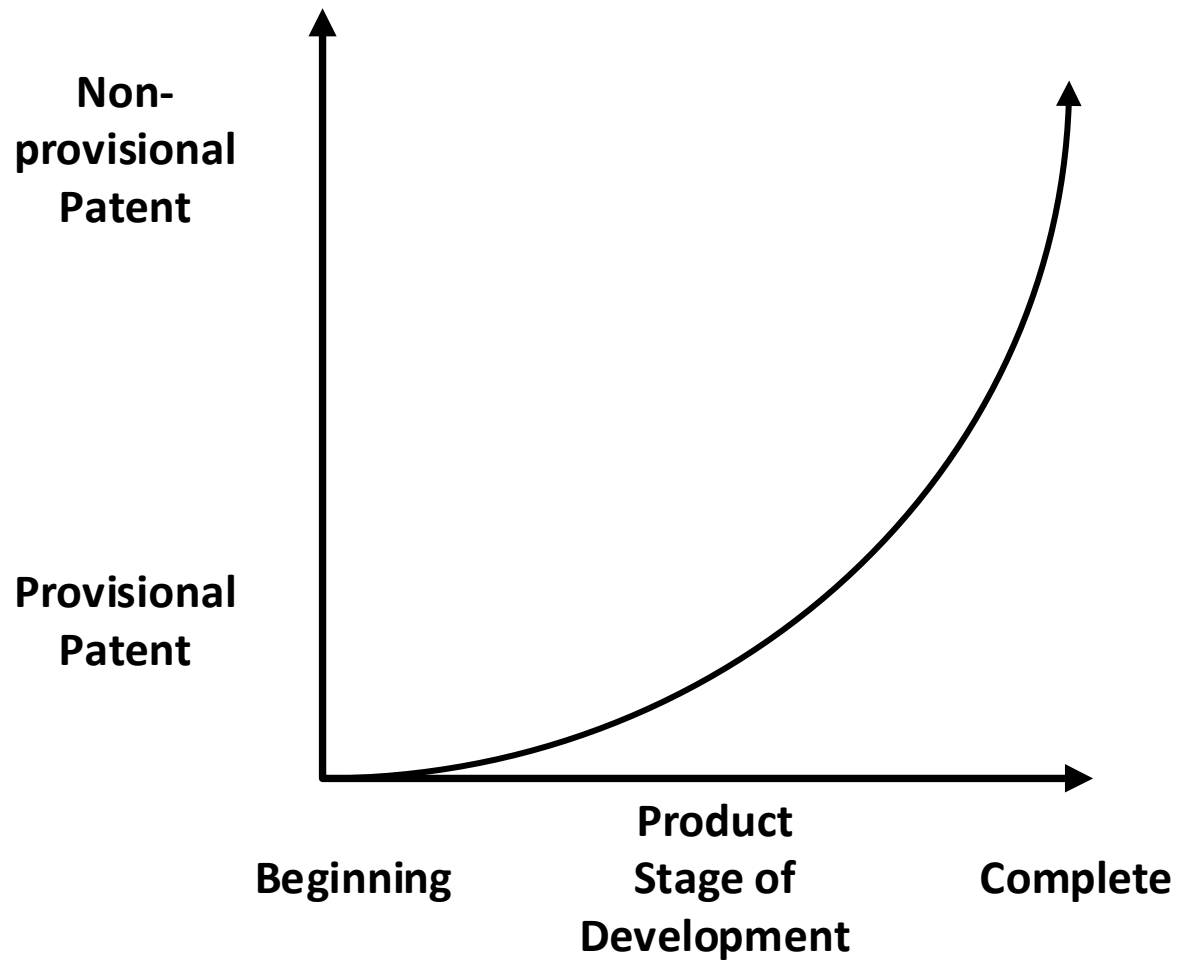
# Importance of Patenting versus Level of Technology



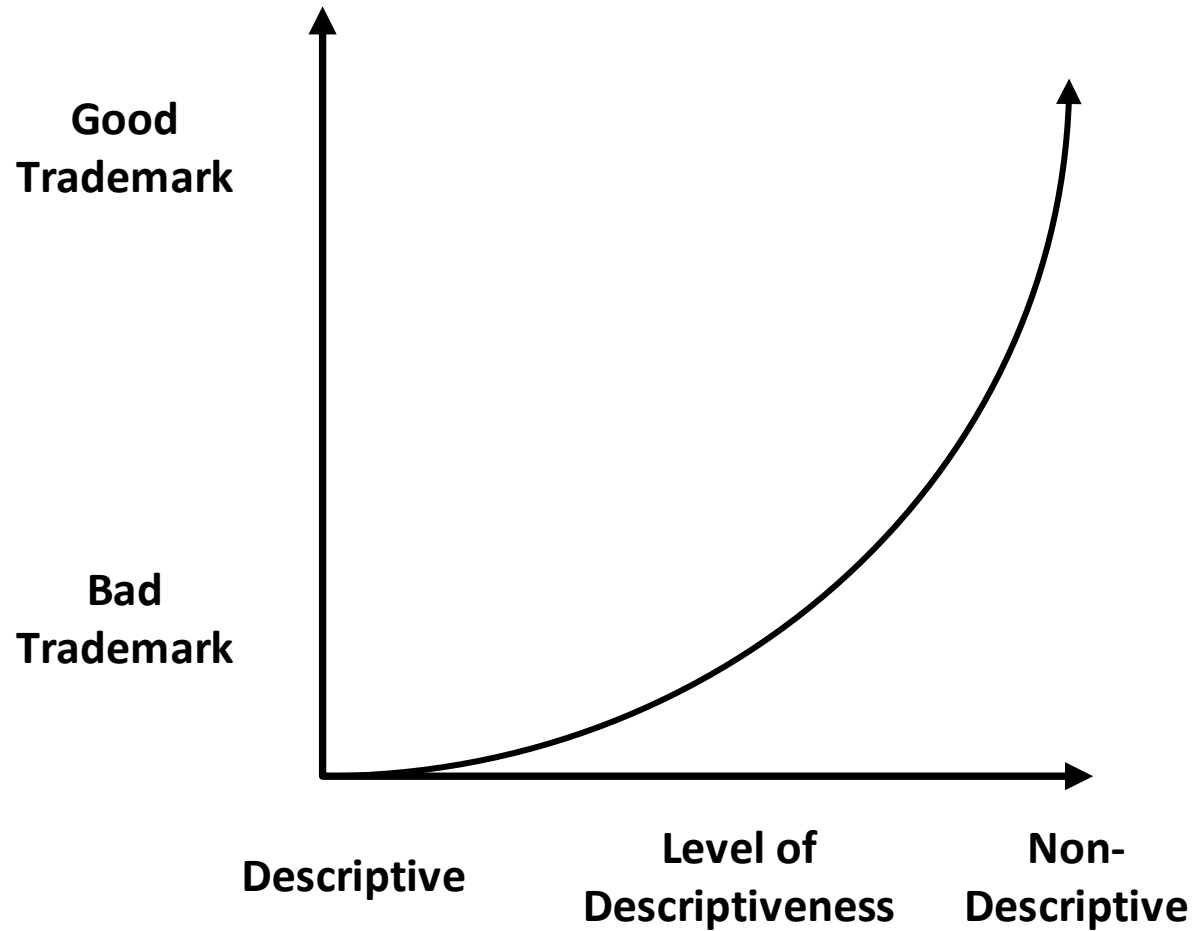
# Patenting versus Product Shelf Life



# Provisional versus Non-Provisional

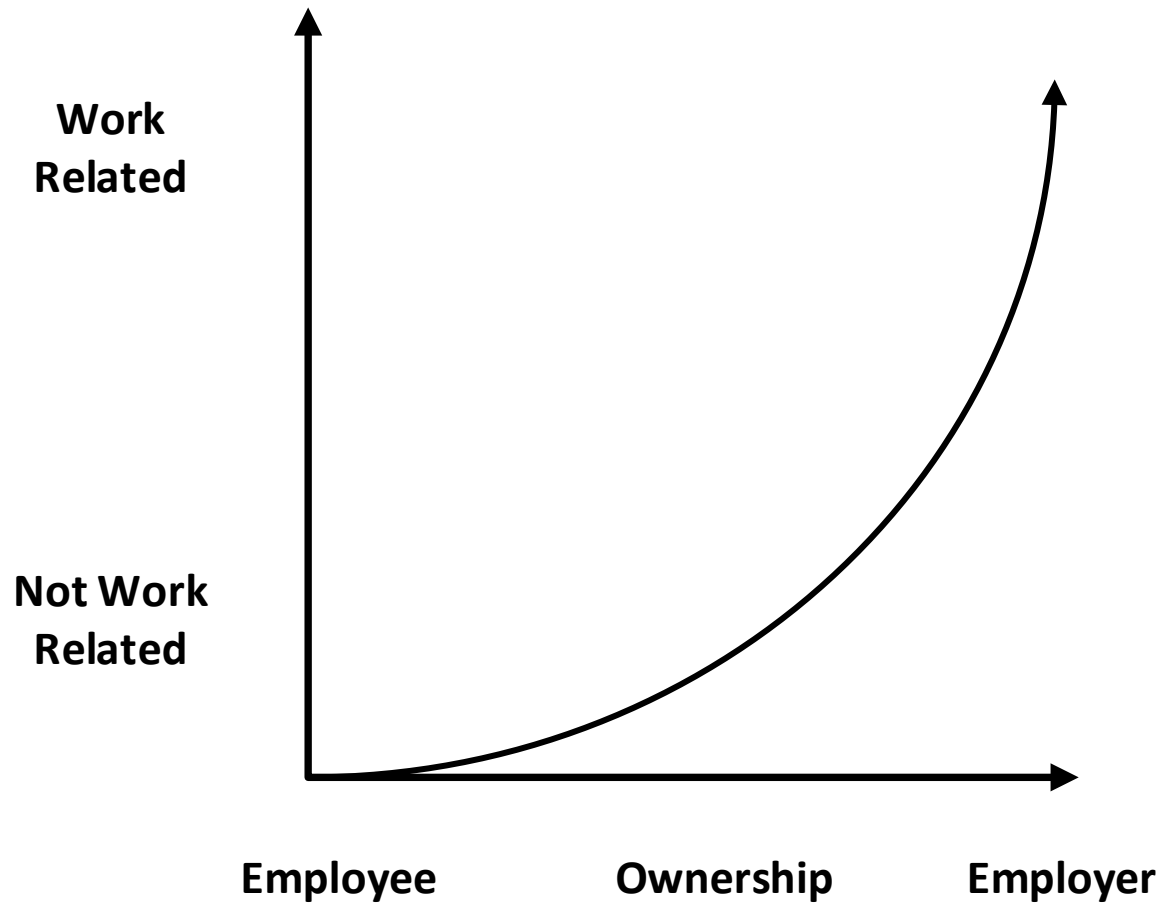


# Good versus Bad Trademarks



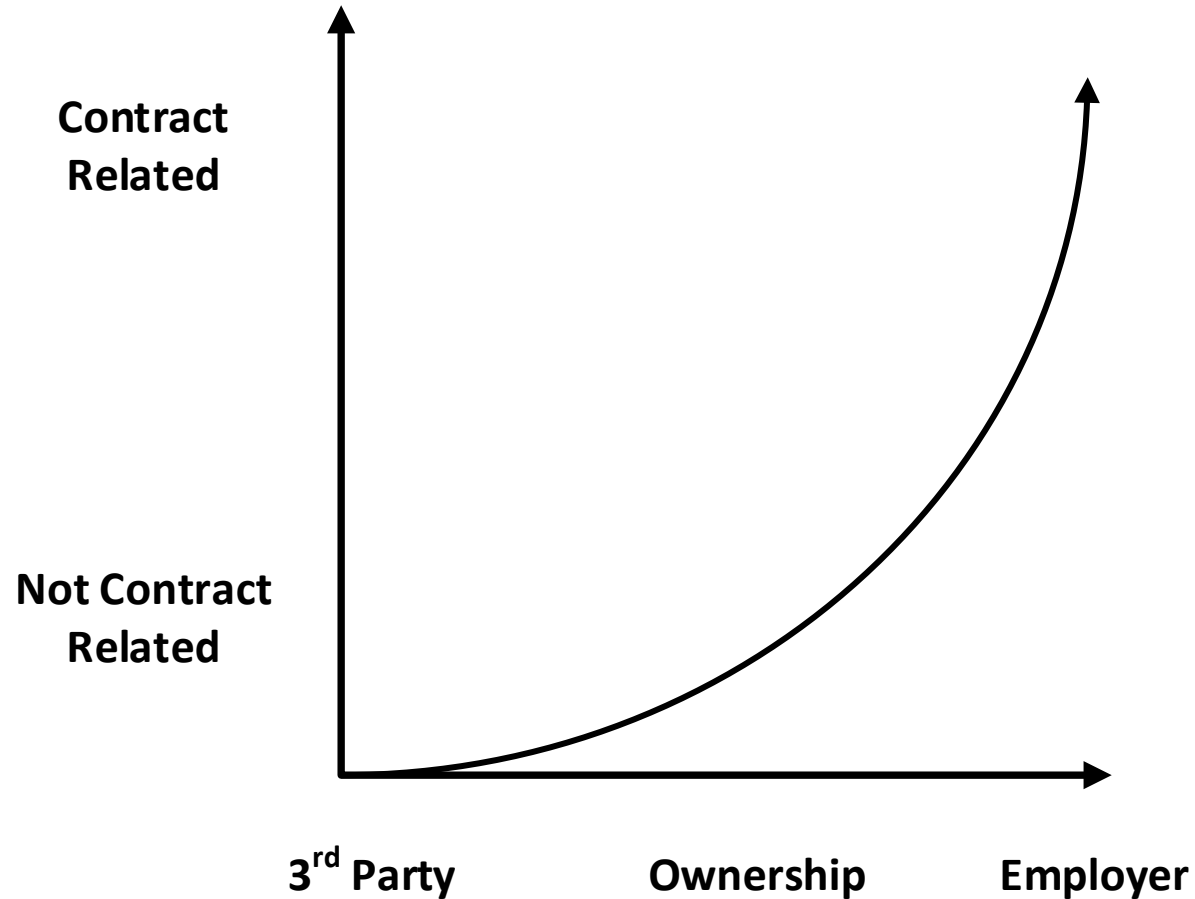
# Employer versus Employee Ownership

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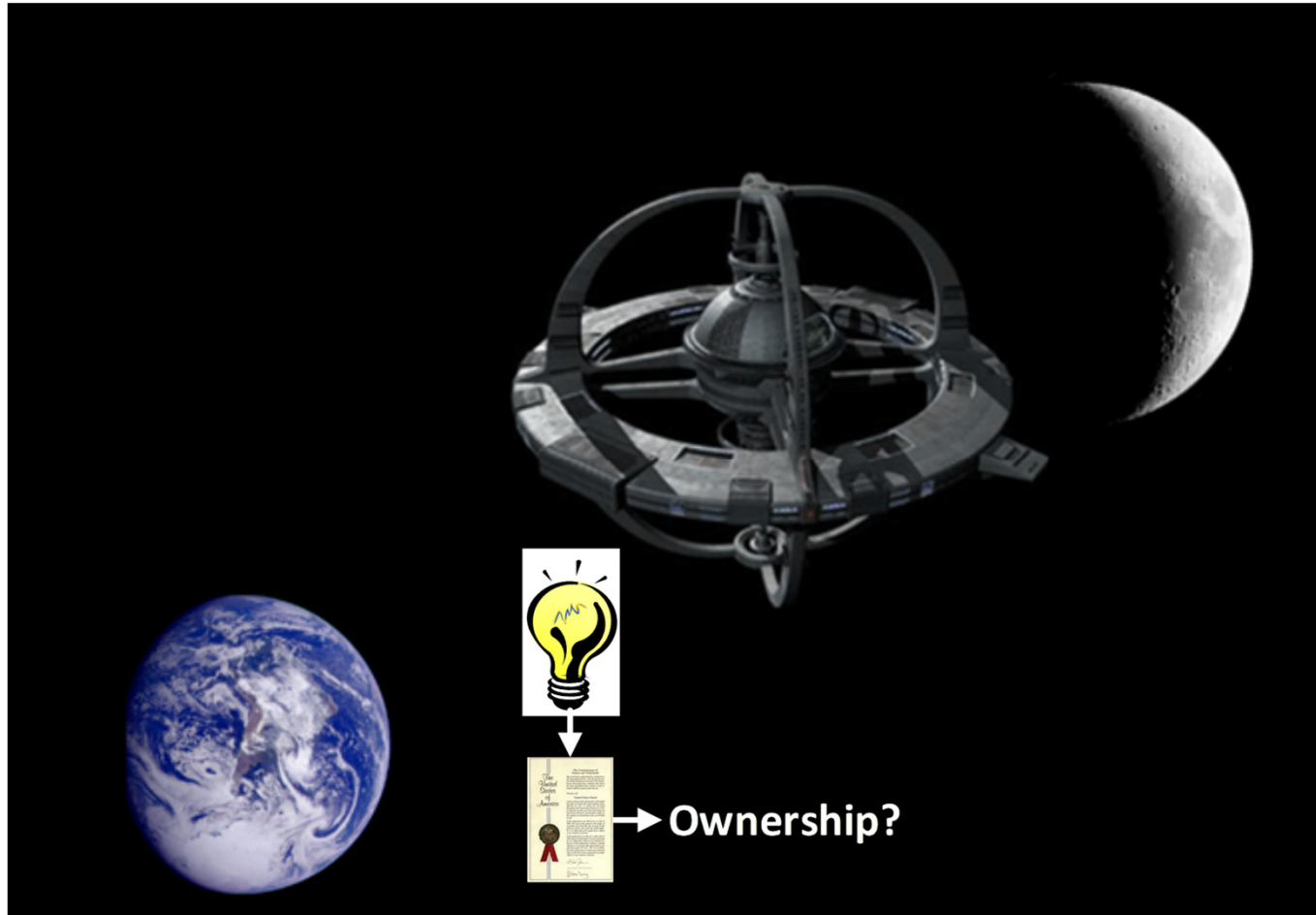


# Employer versus Third Party Ownership

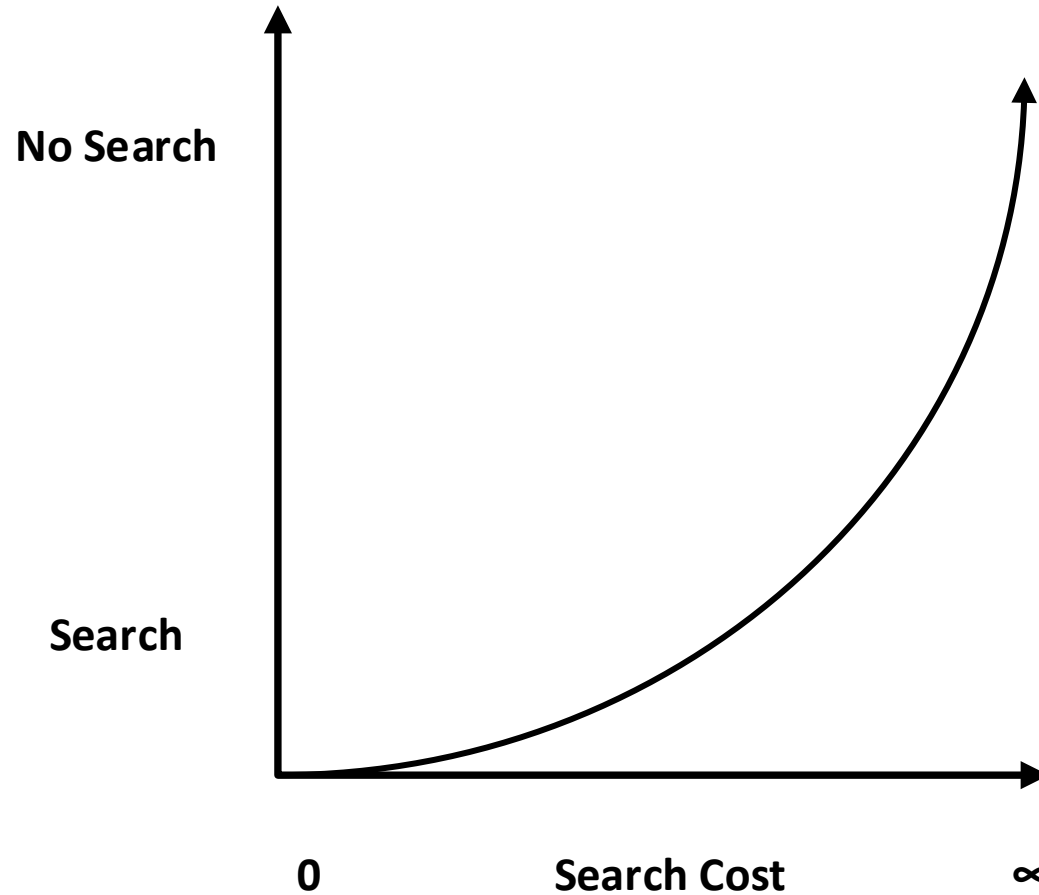
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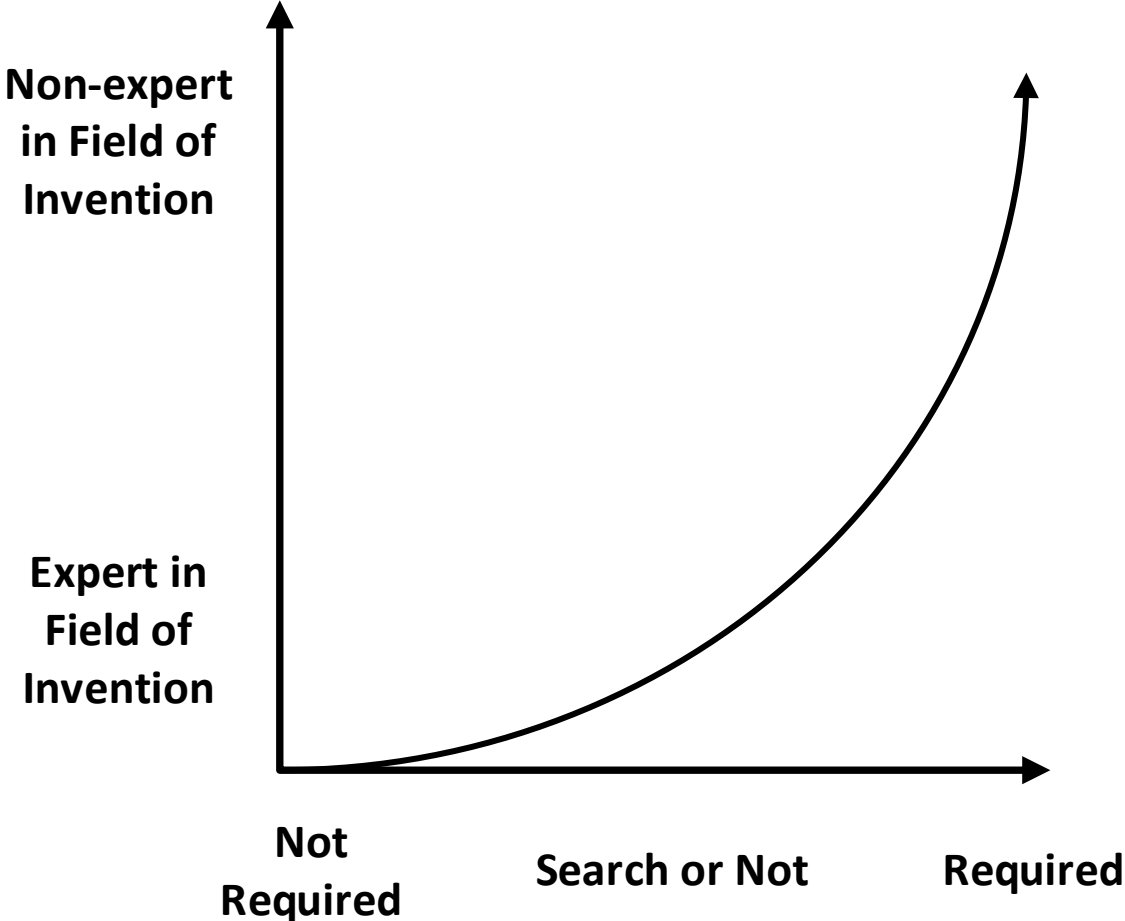
# IPR Ownership in Space



# Search Cost versus Search Decision

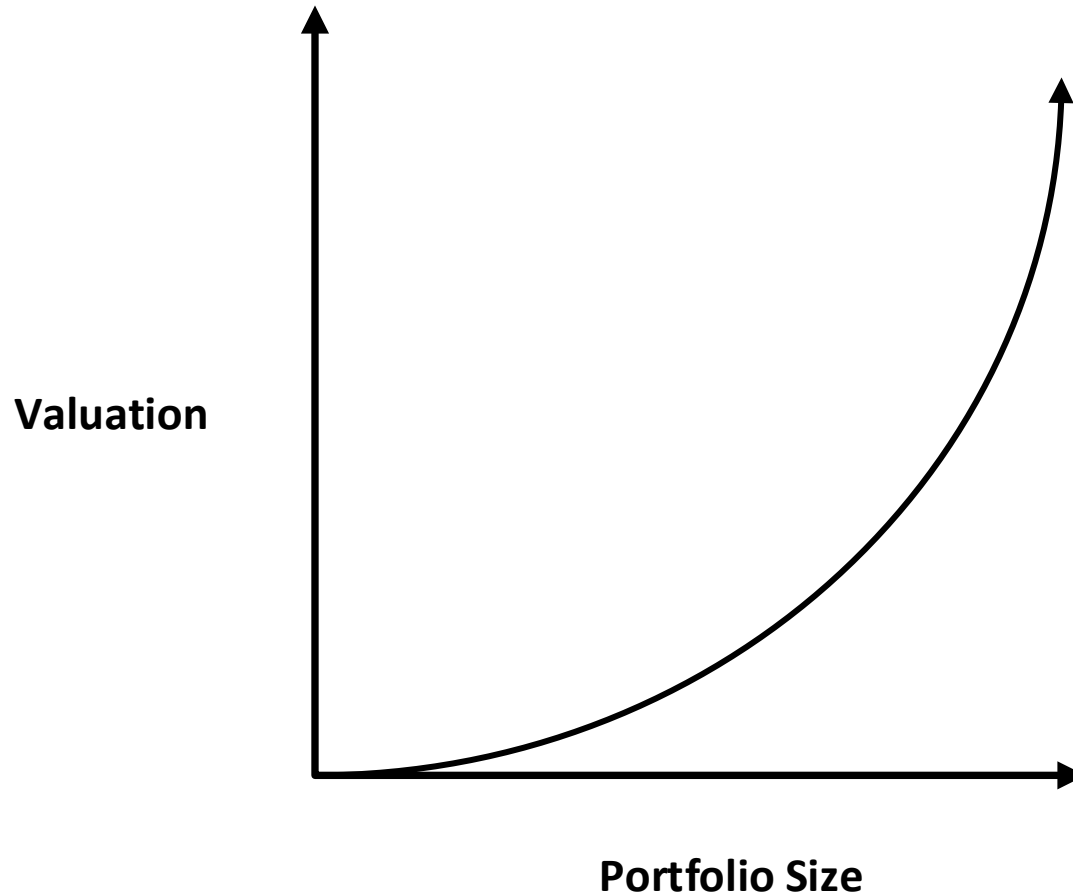


# To Search or Not to Search



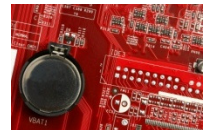
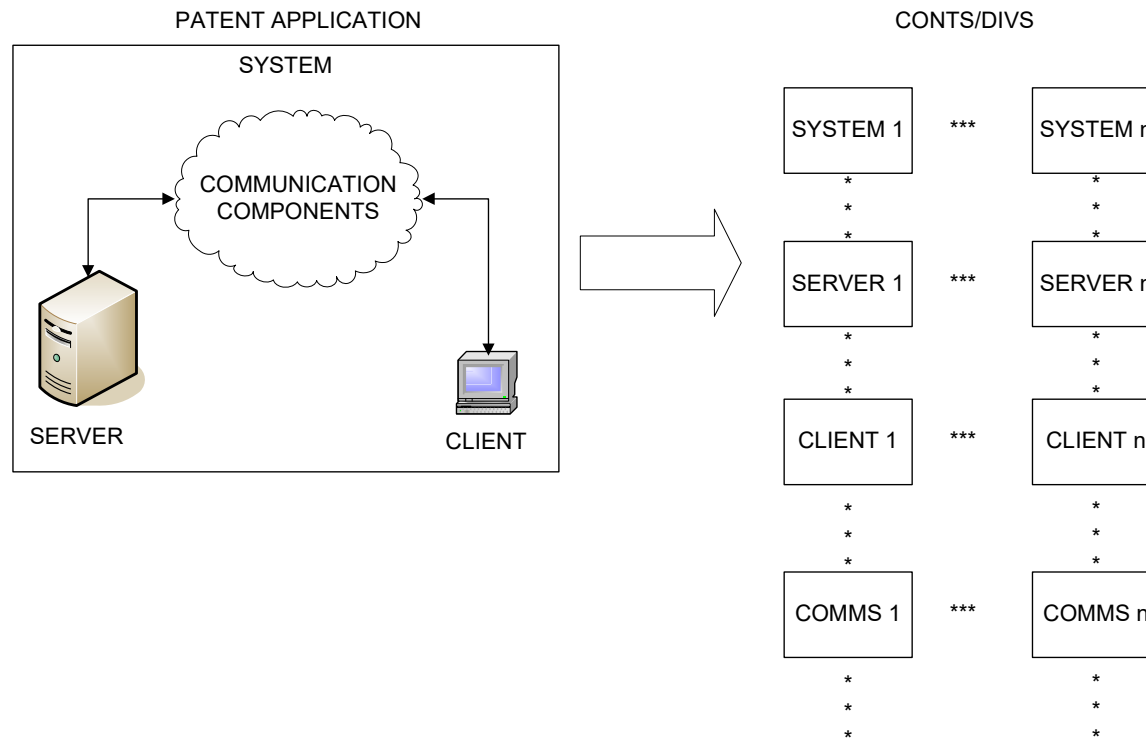
# IP Portfolio Size versus Valuation

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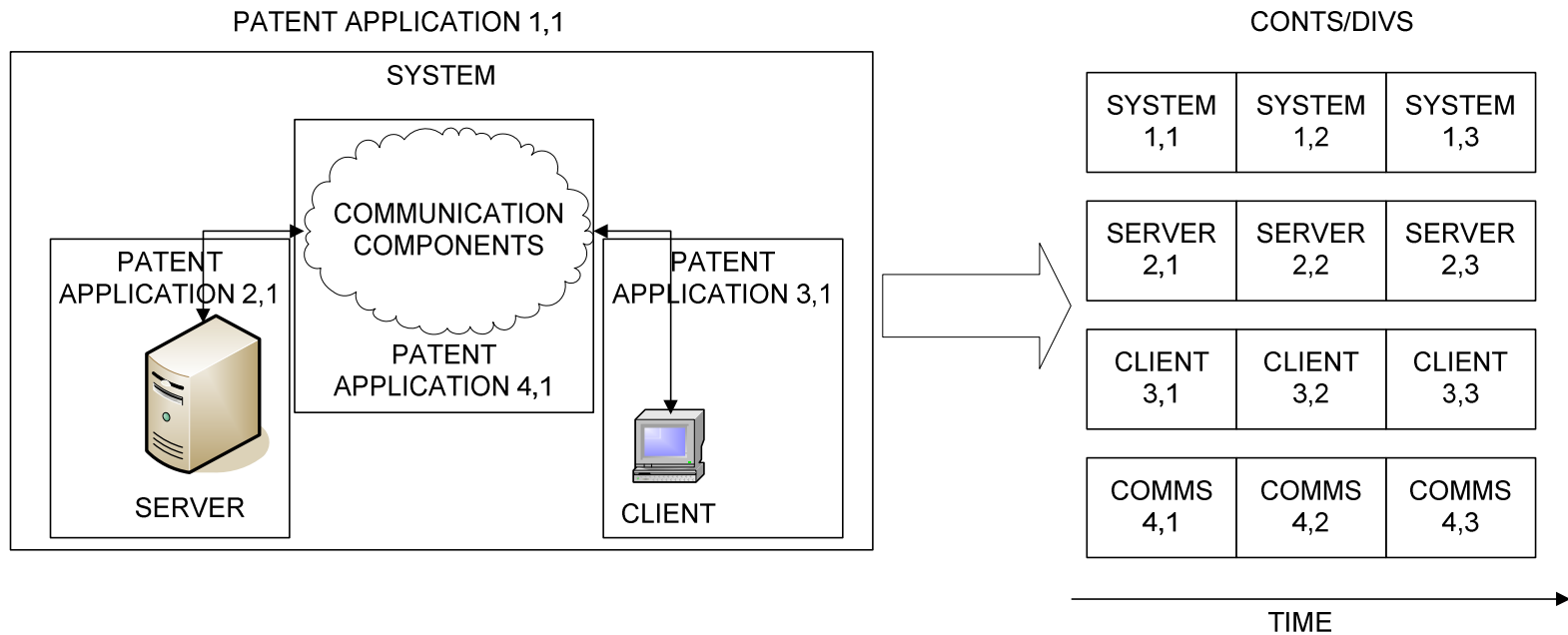
# Maximizing IP

- Not splitting up system and subsystems into separate applications:



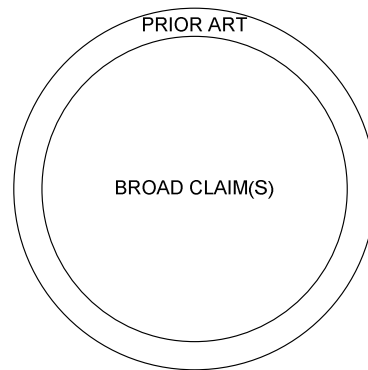
# Maximizing IP (cont.)

- Splitting up system and subsystems into separate applications:

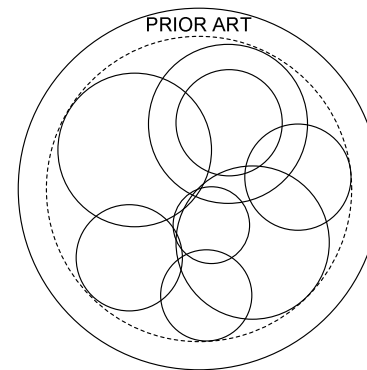


# Maximizing IP (cont.)

## •Picket fence approach to IP protection:



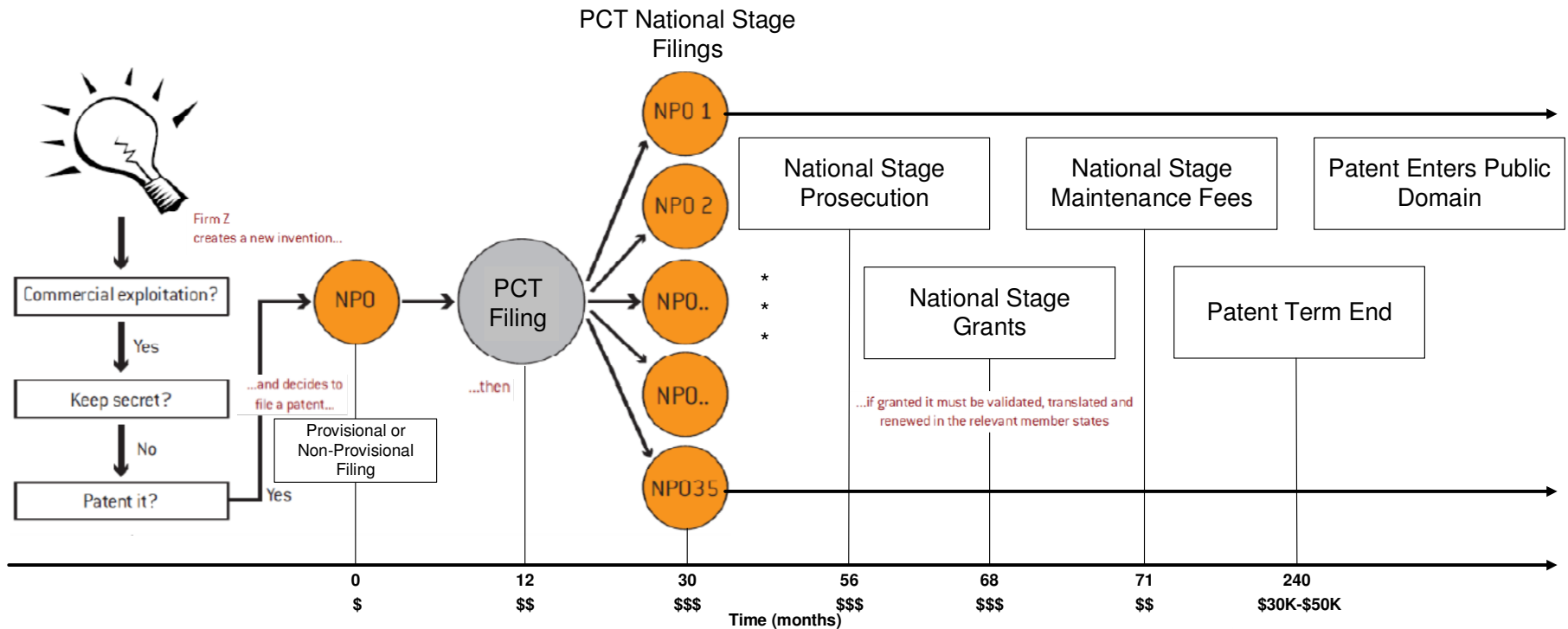
- Pros:
  - Captures more infringers
  - Reduces costs
  - Favors high tech
- Cons:
  - Easier to invalidate
  - Harder to prosecute
  - Disfavors low tech



- Pros:
  - Harder to invalidate
  - Easier to prosecute
  - Favors low tech
- Cons:
  - Easier to design around
  - Increases costs
  - Disfavors high tech



# Worldwide Patenting Overview



"Lost property: The European patent system and why it doesn't work," Bruno Van Pottelsberghe, BRUEGEL BLUEPRINT SERIES, Volume IX



# Minimizing IP Costs

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- **Prepare patent-like disclosures to minimize attorney time:**

- Use patent application and drawing templates:
  - Don't pay a patent attorney rate to write "the server 20 is connected to the client 10 via communications network 5."
  - Use patent application in similar technologies as samples
- Have patent attorney provide feedback to enable a learning process
- Develop an in-house patent preparation capability and use patent attorney only for "value add" tasks, like claim drafting, word smithing, legal and technical analysis, etc.
- This depends on whether or not you have "more time than money or more money than time"



# Minimizing IP Costs (cont.)

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- **Work with an experienced attorney:**

- Work with a competent patent attorney who understands your business and technology, can help you navigate the IP landscape, and can help you protect your IP assets nationally and globally:



- Factors to consider:

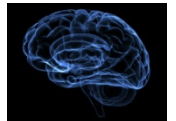
- The cost-effectiveness the patent attorney provides
    - It is no secret that the most expensive piece of the IP protection puzzle is usually the patent attorney
    - Find a patent attorney that takes the time to understand your technology, revenue model, and work processes to make sure that an IP strategy is executed in a focused and efficient manner



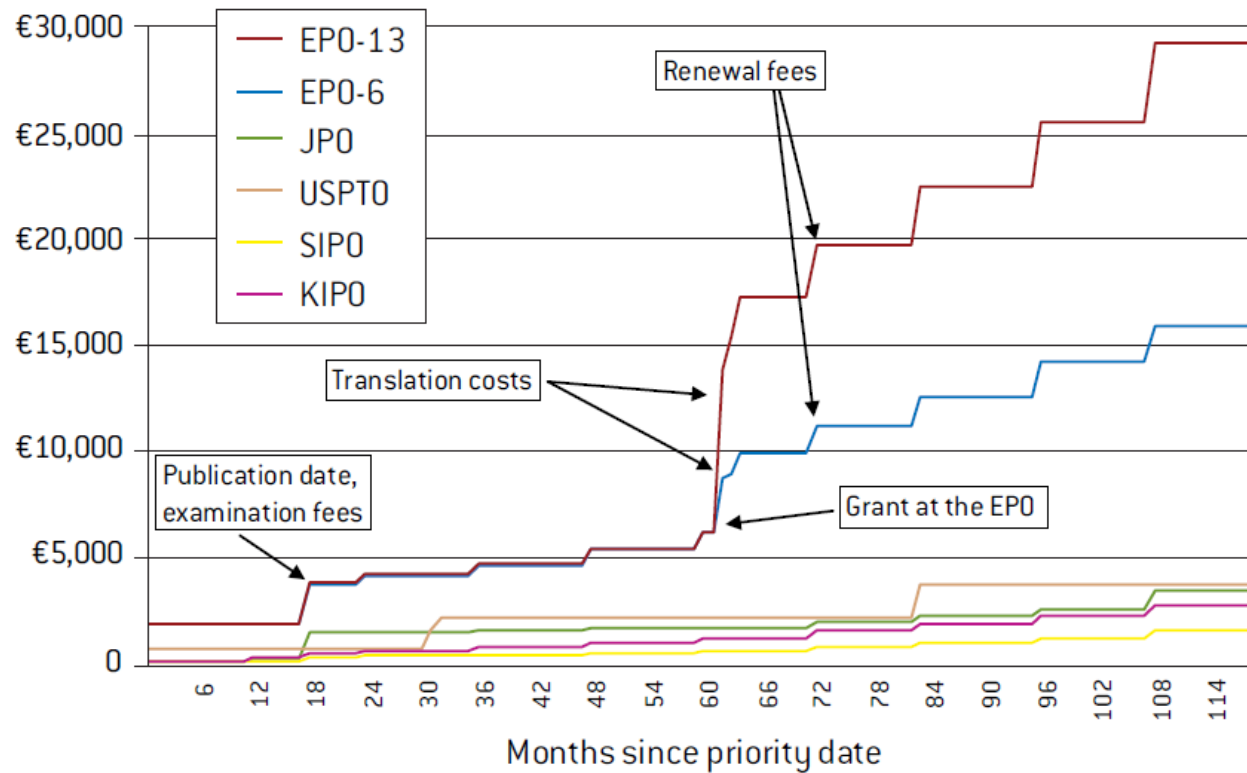
# Minimizing IP Costs (cont.)

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- **Interview patent cases with examiner early and often:**
  - Personal interviews help expedite prosecution:
    - In the US, granted as a matter of right for a first office action, :
      - After a final office action, granted on a discretionary basis
  - Help avoid “prosecution history estoppel”
  - Attorney’s rapport with examiners is very important:
    - Attorney should “play well” with examiners and be highly prepared and knowledgeable about the invention and prior art



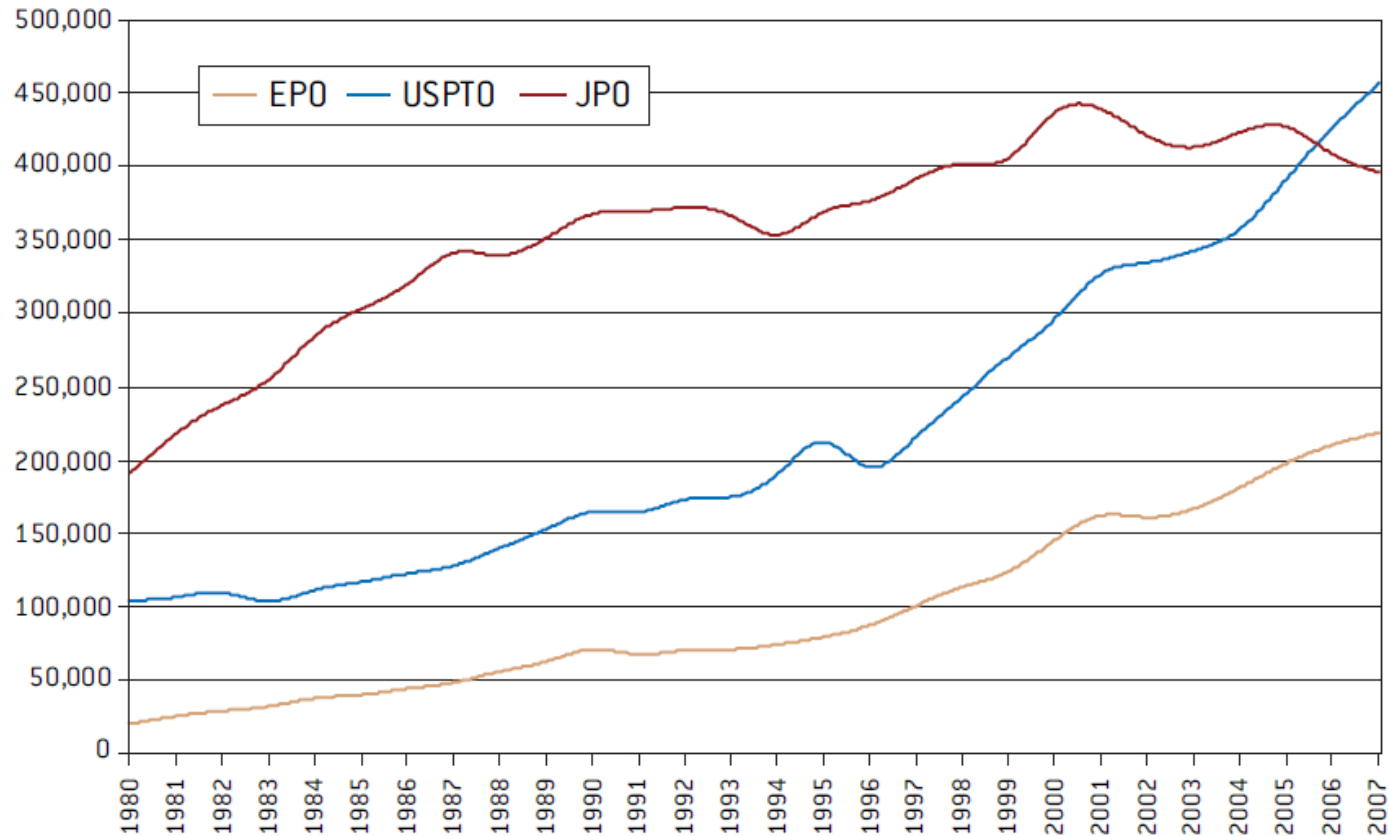
# Minimizing IP Costs (cont.)



“Lost property: The European patent system and why it doesn’t work,” Bruno Van Pottelsberghe, **BRUEGEL BLUEPRINT SERIES**, Volume IX



# Minimizing IP Costs (cont.)



“Lost property: The European patent system and why it doesn’t work,” Bruno Van Pottelsberghe, **BRUEGEL BLUEPRINT SERIES**, Volume IX



# Minimizing IP Costs (cont.)

Country/Region	US/Multi Agent	US/Single Agent
US	\$2,500.00	\$5,400.00
UAE	\$5,000.00	\$9,200.00
UAE	\$1,000.00	\$1,000.00
SI	\$1,500.00	\$4,400.00
SI	\$1,000.00	\$1,000.00
PH	\$1,000.00	\$1,000.00
PH	\$1,500.00	\$3,500.00
OA	\$8,000.00	\$13,600.00
OA	\$1,000.00	\$1,000.00
IN	\$1,500.00	\$4,000.00
IN	\$1,000.00	\$1,000.00
EP	\$8,000.00	\$10,100.00
EP	\$1,000.00	\$1,000.00
EA	\$8,000.00	\$13,950.00
EA	\$1,000.00	\$1,000.00
CN	\$5,600.00	\$8,300.00
CN	\$1,000.00	\$1,000.00
CA	\$2,500.00	\$5,400.00
CA	\$1,000.00	\$1,000.00
BR	\$4,000.00	\$8,900.00
BR	\$1,000.00	\$1,000.00
AU	\$1,000.00	\$1,000.00
AU	\$3,000.00	\$6,500.00
AP	\$1,000.00	\$1,000.00
AP	\$4,500.00	\$8,300.00
	<b>\$67,600.00</b>	<b>\$113,550.00</b>



# The EP Unitary Patent: A New World Order?

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# Satellite and Cable Directive

## Directive 93/83/EEC

### European Union directive

<b>Title</b>	Directive on the coordination of certain rules concerning copyright and rights related to copyright applicable to satellite broadcasting and cable retransmission
<b>Made by</b>	European Council
<b>Made under</b>	Arts. 57(2), 66 & 100a
<b>Journal reference</b>	L248, 1993-10-06, pp. 15–21
<b>History</b>	
<b>Date made</b>	27 September 1993
<b>Came into force</b>	6 October 1993
<b>Implementation date</b>	1 January 1995
<b>Preparative texts</b>	
<b>Commission proposal</b>	C255, 1991-10-01, p. 3 C25, 1993-01-28, p. 43
<b>EEESC opinion</b>	C98, 1992-04-21, p. 44
<b>EP opinion</b>	C305, 1992-11-23, p. 129
<b>Reports</b>	
<b>Other legislation</b>	
<b>Replaces</b>	—
<b>Amends</b>	—
<b>Amended by</b>	—
<b>Replaced by</b>	—
<b>Current legislation</b>	

- Satellite broadcasting
  - Author's exclusive right of to authorize or prohibit broadcasting of his or her works by satellite (Article 2)
  - Subject to a compulsory licensing scheme when the satellite broadcast is simultaneous with a terrestrial broadcast (Article 3(2))
  - Satellite broadcasting is assimilated to terrestrial broadcasting for purposes of rights of performers, phonogram producers and broadcasting organizations (Article 4)
- Cable retransmission
  - On the basis of contractual, not statutory, licenses with copyright holders (Article 8)
  - Licenses may only be granted or refused by collecting societies (Article 9(1)) deemed to be mandated to manage cable retransmission rights of a copyright holder in absence of any expressive agreement (Article 9(2))
  - Broadcasting organizations free to exercise their own related rights to license or prohibit cable retransmission of own broadcasts (Article 10)
  - Mediation in disputes between parties (Article 11) and measures to prevent abuse of monopoly powers (Article 12).



# TRIPS Agreement

## TRIPS Agreement Annex 1C to the Agreement establishing the World Trade Organization

### Agreement on Trade-Related Aspects of Intellectual Property Rights



- WTO members (where the TRIPS agreement applies)
- Parties to the Agreement where also the membership of the European Union applies

Type      Annex to the Agreement  
             establishing the World Trade  
             Organization

Effective    1 January 1995<sup>[1]</sup>

Parties      158 (All WTO members)<sup>[2]</sup>

Languages   English, French and Spanish

 Agreement on Trade-Related Aspects of  
Intellectual Property Rights at Wikisource

- Requires WTO members to provide copyright rights, covering content producers including performers, producers of sound recordings and broadcasting organizations; geographical indications, including appellations of origin; industrial designs; integrated circuit layout-designs; patents; new plant varieties; trademarks; trade dress; and undisclosed or confidential information
- Specifies enforcement procedures, remedies, and dispute resolution procedures
- Protection and enforcement should contribute to promotion of technological innovation and to transfer and dissemination of technology
- Article 27 requires patentability "in all fields of technology," but controversy over granting of software and business method patents
- Article 10 states appropriate instrument to protect software is author copyright (see Oracle America, Inc. v. Google, Inc.)



# WIPO Copyright Treaty

## WIPO Copyright Treaty WCT

### World Intellectual Property Organization Copyright Treaty

Signed	20 December 1996
Location	<a href="#">Geneva, Switzerland<sup>[1]</sup></a>
Effective	6 March 2002 <sup>[1]</sup>
Condition	30 ratifications <sup>[1]</sup>
Parties	93 <sup>[2]</sup>
Depositary	Director-General of the <a href="#">World Intellectual Property Organization<sup>[1]</sup></a>
Languages	English, Arabic, Chinese, French, Russian and Spanish <sup>[1]</sup>

 [WIPO Copyright Treaty at Wikisource](#)

- Computer programs are protected as literary works (Article 4)
- Arrangement and selection of material in databases is protected (Article 5)
- Authors of works can control rental and distribution (Articles 6 to 8)
- Prohibits circumvention of technological measures for the protection of works (Article 11)
- Prohibits unauthorized modification of rights management information contained in works (Article 12)



# Copyright Directive

## Directive 2001/29/EC

European Union directive	
<b>Title</b>	Directive on the harmonisation of certain aspects of copyright and related rights in the information society
<b>Made by</b>	European Parliament & Council
<b>Made under</b>	Arts. 47(2), 55 & 95
<b>Journal reference</b>	L167, 2001-06-22, p. 10 L6, 2002-01-10, p. 70
History	
<b>Date made</b>	2001-05-22
<b>Came into force</b>	2001-06-22
<b>Implementation date</b>	2002-12-22
Preparative texts	
<b>Commission proposal</b>	C108, 1998-04-07, p. 6 C180, 1999-06-25, p. 6
<b>EESC opinion</b>	C407, 1998-12-28, p. 30
<b>EP opinion</b>	C150, 1999-05-28, p. 171
Other legislation	
<b>Amends</b>	92/100/EEC, 93/98/EEC
Current legislation	

- EU directive to implement the WIPO Copyright Treaty and to harmonize aspects of copyright law across Europe, such as copyright exceptions
- Types of copyrights: "reproduction right" (Article 2); and "communication to the public" or "making available to the public" (Article 3), i.e., the Internet
- Transient or incidental copying during network transmission or legal use provides exception for internet service providers
- Digital Rights Management (DRM) requirement
- DRM circumvention devices prohibited
- Under Digital Millennium Copyright Act (DMCA) "fair use" DRM circumvention allowed
- In US, reverse engineering of software and machines may be allowed in certain cases, interoperability, fair use, infringement, etc. E.G., intermediate copying of object code regarding microchip fair use (Atari Games Corp. v. Nintendo of America Inc.)



# Case Study: SyncDocs

SyncDocs



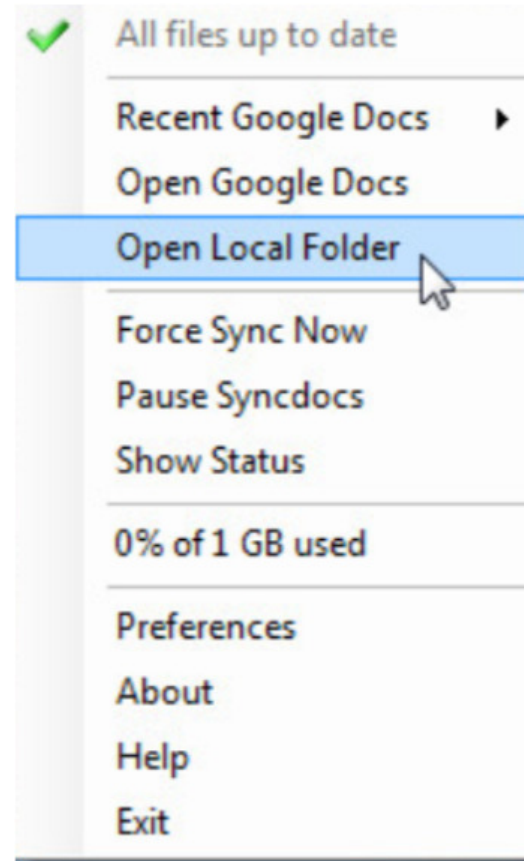
*Searching US Patents Text Collection...*

**Results of Search in US Patents Text Collection db for:**  
**AN/syncdocs: 0 patents.**

No patents have matched your query

Refine Search

an/syncdocs



**The Villamar Firm**  
Attorneys at Law

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# Case Study: Google Drive

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Google Drive



Sync complete

Pause

Open Google Drive folder

Visit Google Drive on the web

View items shared with me

crvillamar@villamars.com

60.25GB (26%) of 231.00GB used

Get more storage

Preferences...

Help



# Case Study: Postini



Searching US Patent Collection...

Results of Search in US Patent Collection db for:

AN/postini: 6 patents.

Hits 1 through 6 out of 6

Jump To

Refine Search

PAT. NO.	Title
1 7,277,695	<a href="#">E-mail policy compliance techniques</a>
2 7,272,378	<a href="#">E-mail filtering services using Internet protocol routing information</a>
3 7,236,769	<a href="#">Value-added electronic messaging services and transparent implementation thereof using intermediate server</a>
4 7,133,660	<a href="#">E-mail filtering services and e-mail service enrollment techniques</a>
5 6,941,348	<a href="#">Systems and methods for managing the transmission of electronic messages through active message date updating</a>
6 6,650,890	<a href="#">Value-added electronic messaging services and transparent implementation thereof using intermediate server</a>



# The US/Worldwide Anti-Patent Movement: A New World Order?

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**Defend Innovation**  
a project of the Electronic Frontier Foundation

**The patent system is in crisis, and it endangers the future of software development in the United States. Let's create a system that defends innovation, instead of hindering it.**

**Act Now!**  
We'll compile signatures and comments into a whitepaper to take to Congress

First \*    Last \*

Email Address \*

Job Title

Comments

1 A patent covering software should be shorter, no more than five years from the application date.

If the patent is invalid or there's no infringement, the trolls





# The Villamar Firm PLLC

*Attorneys at Law*



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## Home

The Villamar Firm is a Professional Limited Liability Company (PLLC) law firm based in Virginia with easy access to the [United States Patent and Trademark Office](#). The Villamar Firm specializes in the practice of Intellectual Property Law, including [patents](#), [trademarks](#), [copyrights](#), [trade secrets](#) and [computer and internet law](#).

At The Villamar Firm we strive to provide the best possible work product, at a competitive price, and with superior client service.

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- [Update: Eye3 Drone Officially Too Good to Be True](#)
- [IR Eye](#)
- [Engineers: What's in a Name?](#)
- [Books: In Search of the Elusive Definition of Heterosexuality](#)

**The Villamar Firm**  
Attorneys at Law

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**Carlos R. Villamar, J.D., M.S.E.E., B.S.E.E.**

attorneys



Carlos R. Villamar is a founding partner of **The Villamar Firm**.\*

**Areas of Practice:** Patents, Trademarks, Copyrights, Licensing.

Mr. Villamar is a patent attorney with broad experience assisting clients with foreign and domestic patent application preparation and prosecution, opinion work, litigation, and IP counseling.

\*Mr. Villamar is licensed to practice US state law in Virginia and the District of Columbia.

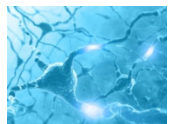


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Mr. Villamar's expertise covers a wide variety of technologies, including wired, wireless, optical, terrestrial broadcast and satellite communications, neural networks, fuzzy logic and artificial intelligence, encryption, digital signal processing, speech recognition and language understanding, sound and image processing, video processing, medical imaging, video games, on-line gaming, gaming engines, physics engines, 3D graphics, virtual worlds, Digital Rights Management, e-commerce, military technologies, radar, sonar, fighter aircraft, missiles, ground guidance, heads-up displays, computers and architectures, computer networks and security, semiconductors, device manufacturing, nanotechnology, oil and gas exploration, renewable energy, electrical, solar, thermal and wind power, automotive technologies, and electromechanical technologies.

Prior to founding **The Villamar Firm**, Carlos gained extensive experience in numerous aspects of intellectual property law as an attorney in large, national general practice and IP boutique law firms and as a patent examiner in the Speech Signal Processing Group of the [U.S. Patent Trademark Office](#).

As an electrical engineer, Mr. Villamar has over nine years of commercial experience, including production design and testing for the [Standard Missile](#) Program at the [General Dynamics Corporation](#) Missile Systems Group (purchased by [Raytheon](#)), high-speed digital logic and computer design for the [Advanced Tactical Fighter](#) Program at the [Hughes Aircraft Company](#) Radar Systems Group (purchased by Raytheon), and IR&D and design of high-speed digital signal processing and communications systems at the Hughes Aircraft Company Advanced Circuits Technology Center (purchased by Raytheon, spun off as TelASIC and then purchased by [MTI](#)).



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**Education:** J.D., The George Washington University Law School (1998); M.S.E.E., California State University, Long Beach, emphasis in Digital Signal Processing & Neural Networks, (1992); and B.S.E.E., California State Polytechnic University, Pomona, emphasis in Digital Signal Processing, (1987).

**Admitted:** Virginia, the District of Columbia, the United States Supreme Court, the Court of Appeals for the Fourth Circuit, the Court of Appeals for the Federal Circuit, the Virginia Supreme Court, and the District Court for the Eastern District of Virginia. Served on the Board of Directors of the Federal Circuit Bar Association.

Carlos R. Villamar may be reached by email at [cvillamar@villamars.com](mailto:cvillamar@villamars.com) or by telephone at (703) 623-4122.



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**Barbara Villamar, S.J.D., LL.M.**

attorneys

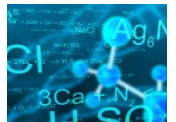


Dr. Barbara Villamar is Of Counsel to **The Villamar Firm**.\*

**Areas of Practice:** International Business Transactions, Corporate, International Trademark Law.\*\*

\*Dr. Villamar is only licensed to practice US state law in the District of Columbia.

\*\*Dr. Villamar's practice will be limited to Trademark Law while licensed in the District of Columbia.



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Dr. Villamar is licensed to practice law in [Germany](#) and the United States and specializes in international and domestic corporate and business issues and trademark law. She is also available to serve in a liaison capacity between German and U.S. counterparts. Before joining the firm, Dr. Villamar worked on both sides of the Atlantic advising and representing clients in corporate, regulatory and transactional matters. She has broad experience guiding clients through the evaluation, negotiation and closing process of commercial arrangements, specifically pertaining to Internet service providers. She has assisted in the formation and restructuring of corporations and joint ventures, execution of domestic and cross-border transactional agreements, and formulation of internal and external corporate policies.

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Dr. Barbara Villamar ist für **The Villamar Firm** als freie Mitarbeiterin tätig.\*

**Schwerpunkte:** Internationales Handels- und Gesellschaftsrecht, Internationales Markenrecht. Dr. Villamar ist in Deutschland und in den Vereinigten Staaten als Rechtsanwältin zugelassen und konzentriert sich in ihrer Tätigkeit auf nationales und internationales Handels - und Gesellschaftsrecht und Markenrecht. Darüberhinaus steht sie als Verbindungsperson zwischen deutschen und US-amerikanischen Partnern zur Verfügung. Dr. Villamar hat sowohl in Deutschland als auch in den USA Mandanten im Unternehmensrecht beraten und vertreten. Sie hat, u.a. im Bereich der Telekommunikation tätige, Klienten während des Evaluierungs - und Verhandlungsprozesses unterstützt, z.B. bei der Gründung und Umstrukturierung von Unternehmen und Joint Ventures, im Zusammenhang mit nationalen und internationalen Handelsverträgen und bei der Formulierung von internen und externen Unternehmenspraktiken.



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**Education/Ausbildung:**

[Johannes-Gutenberg-Universität](#), Mainz (1. State Bar Exam 1989).

[Landgericht Frankfurt am Main](#) (2. State Bar Exam 1992).

[The George Washington University Law School](#) (LL.M. 1994).

The George Washington University Law School (S.J.D. 2005).

**Bar Admissions/Zulassungen:**

Landgericht Frankfurt am Main, Germany (1992) (presently dormant)

\*District of Columbia Court of Appeals, Washington, D.C. (2002).

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