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# Lean Intellectual Property Rights (IPR) Protection: Inventorship & Ownership Best Practices

by

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October 1, 2020

# US Patent System & Common Pitfalls

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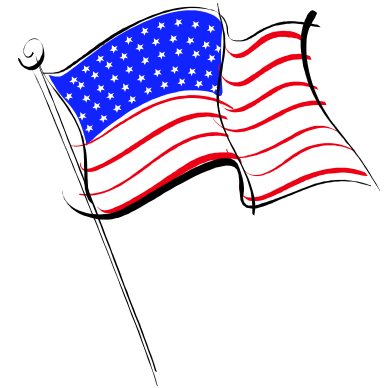
## •Distinguishing features of US Patent system:



- First inventor to file with grace period
- Applicants are the inventor(s), and company or university
- Overview of US Patent Office climate

## •Common pitfalls for startups and universities:

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



# IP Umbrella

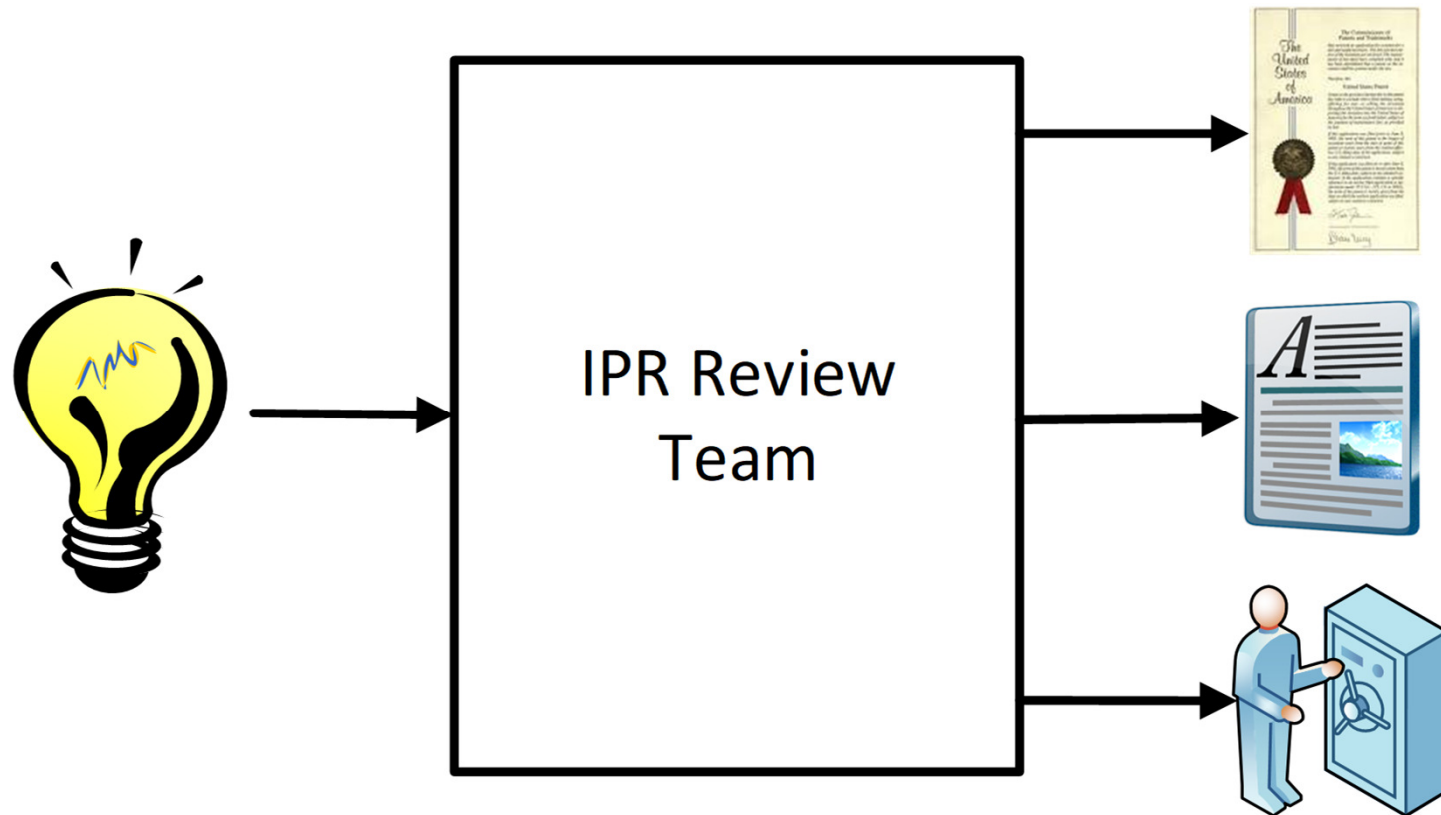
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• IP protection can come in various forms:

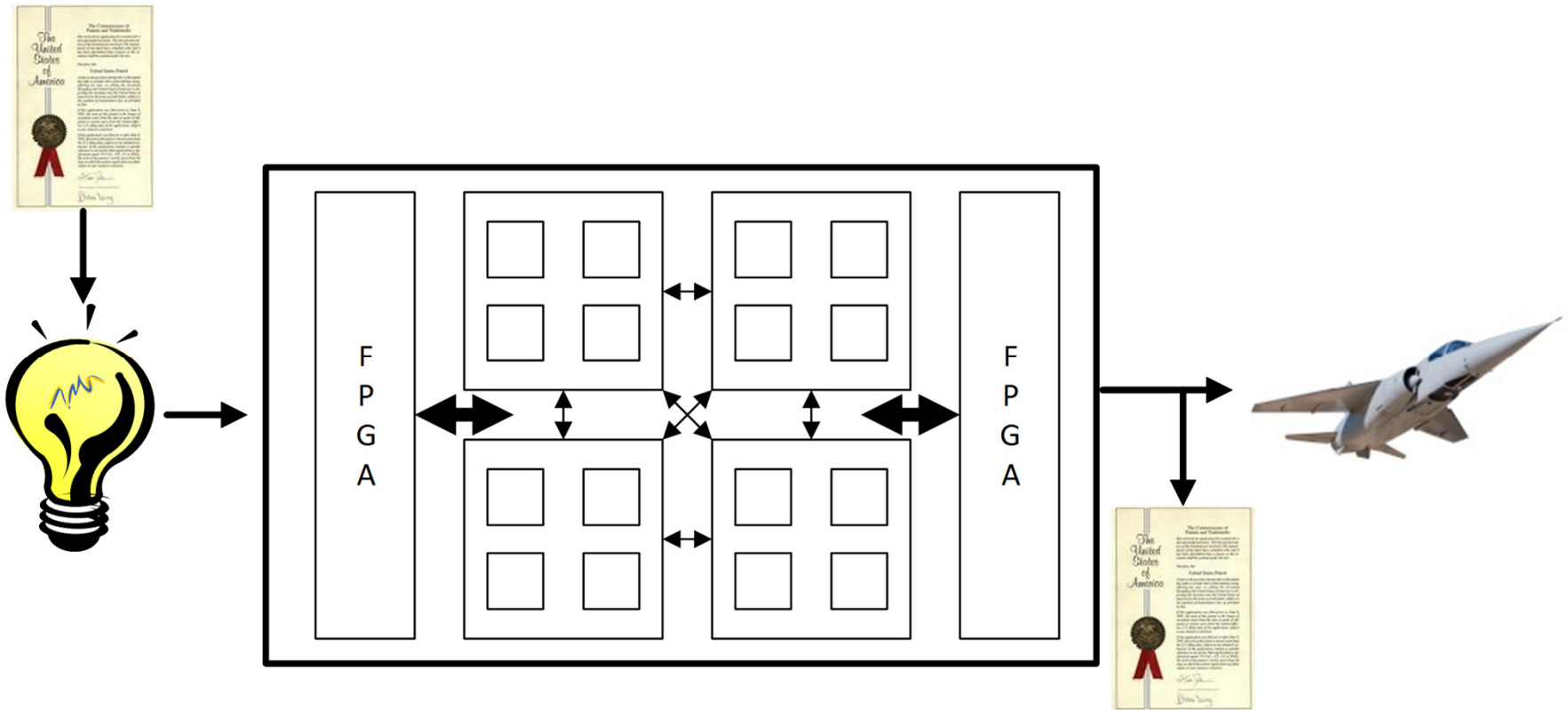
- Trade secrets
- Copyrights
- Trademarks
- Patents
- Licensing



# IPR Review Process

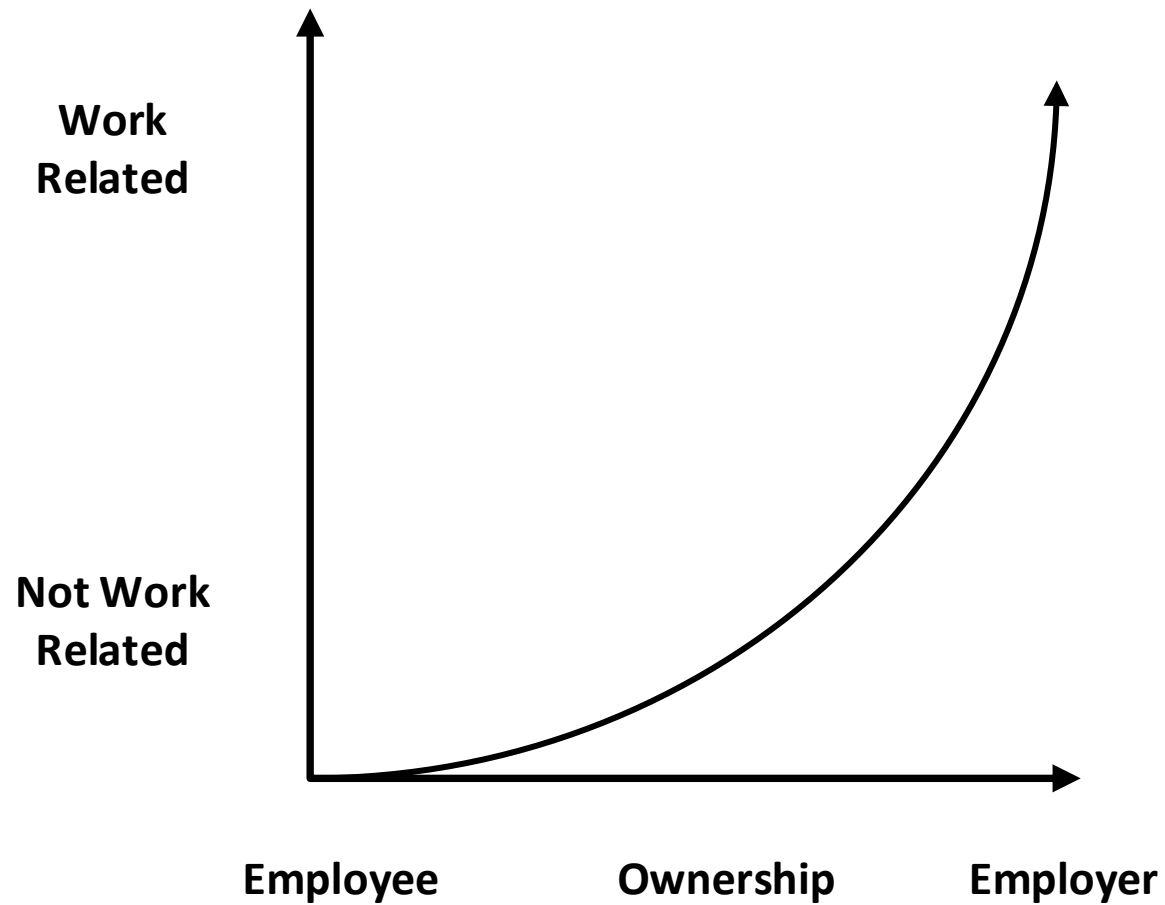


# Innovation Process: From Napkin to Airplane



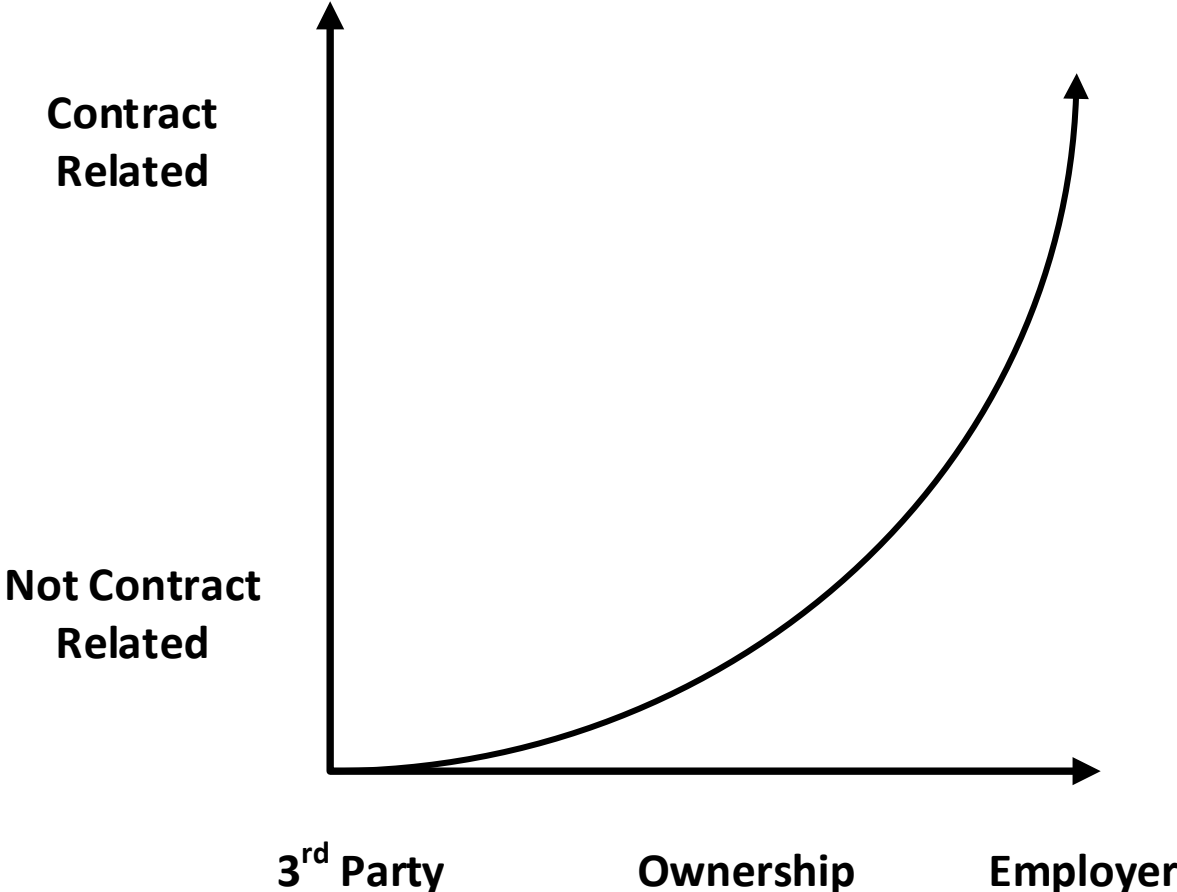
# Employer versus Employee Ownership

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# Employer versus Third Party Ownership

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# Difference Between Patent Inventorship & Ownership

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## • Inventorship:



- Person(s) that created the invention must be first and true inventor(s)
- Researcher(s), student(s), employee(s) or individual(s)
- Can assign, sell or license rights to invention
- Historically used to raise revenue other than from taxation and to grant limited monopolies to spur innovation and with the innovations entering the public domain thereafter

## • Ownership:



- Can be by Government, university, company or individual
- Government, university or company can include duty to assign
- Government, university or company can give award and/or royalties to inventor(s)

# Patent Inventorship & Ownership Considerations

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## •Initial IP Creation:

- Inventor(s) should keep lab notebooks
- Inventor(s) should disclose inventions prior to employment
- Duty to assign and awards and royalties should be included in employment/research contracts

## •Filing for Patent Protection:

- Inventor(s) must be named, and any applicant(s) (Government, university, company) should also be named
- Assignments should be filed with or shortly after filing



## •Patent Licensing & Utilization:

- Freedom to operate & innovation analysis, portfolio development & monetization strategies should be conducted

# University and/or Government Sponsored Innovation

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## •University Sponsored:

- University is assignee with awards and/or royalties to researcher(s) and/or student(s)
- Many researchers go to private companies for better salaries, awards and/or royalties

## •Government Sponsored :

- Government is assignee with awards and/or royalties to employees
- Many employees go to private companies for better salaries, awards and/or royalties



# Multi-University and/or Public and/or Private Innovation

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- **Multi-University Sponsored:**

- Universities are cross-licensees with respective awards and/or royalties to researcher(s) and/or student(s)
- Complex agreements required to capture terms for cross-licensing

- **Public Sponsored :**

- Government is assignee with awards and/or royalties to inventor employee(s)
- Simple work agreements are employed to capture terms for awards and/or royalties to inventor employee(s)

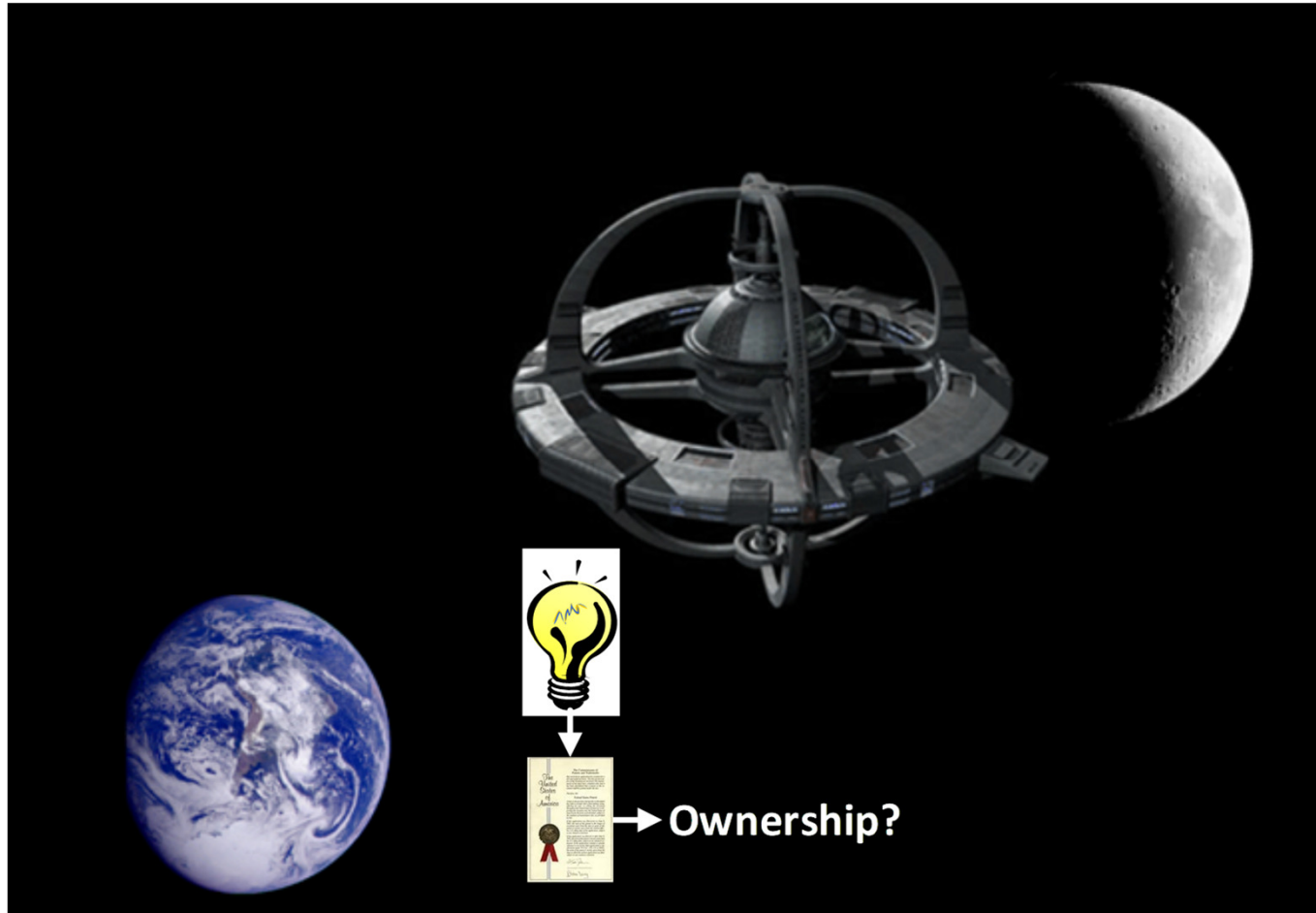


- **Private Sponsored :**

- Company is assignee with awards and/or royalties to inventor employee(s)
- Simple work agreements are employed to capture terms for awards and/or royalties to inventor employee(s)



# The Ultimate Ownership Problem: IPR Ownership in Space



# Key Inventorship & Ownership Factors for Independent Inventors & SMEs



## •Independent Inventors:

- Typically do not have funds for patent protection
- Typically are unsophisticated
- Typically are not served by law firms
- Typically are not able to monetize their patents

## •SMEs:

- Typically do not have sufficient funds for proper patent portfolio development
- Can be unsophisticated
- May not be attractive to law firms until profitable
- Typically have little negotiating power with large corporations
- Typically are competing with other SMEs



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# Case Study: Letting your Patent Sink with the Inventorship

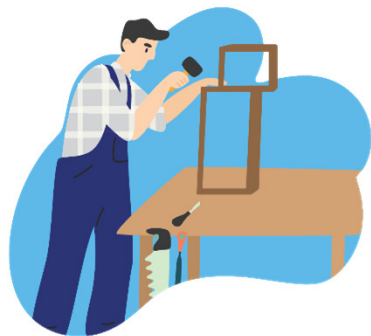
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## •The Inventor:



- Does not keep a lab notebook
- Goes to a third party (e.g., machinist, software developer) to manufacture a prototype
- Tries to patent and claim novel features suggested by third party

## •The Third Party:



- Manufactures the prototype
- Suggests novel features to the inventor
- Third party must be named as co-inventor
- Third party has ownership in patent



# Case Study: The CEO, The Thesis Advisor & The Inventor



## •The CEO:

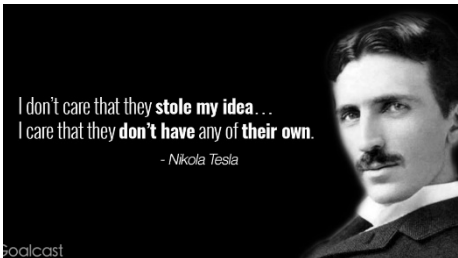
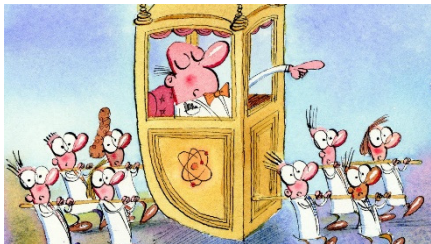
- Lists themselves as sole inventor on all patents for company
- Has no technical background
- Inventorship must be corrected to list proper inventorship

## •The Thesis Advisor:

- Lists themselves as co-inventor on patents of student
- Did not contribute novel features for invention
- Inventorship must be corrected to list proper inventorship

## •The Inventor:

- Is not the true inventor
- Lists themselves as inventor
- Patent is not valid based on fraud on the patent office



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# Case Study: Ownership Chain of Title

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- **The Chain of Title:**

- The first link in the chain is the inventor(s)
- The chain must be unbroken in time from inventor to subsequent assignees
- One cannot assign what one does not own

- **The Inventor:**

- Can assign or may have a duty to assign their invention
- Assignment must be in writing, executed and recorded

- **The Assignee:**

- Can assign to third party
- May impose a duty to assign from inventor
- Assignment must be in writing, executed and recorded

# Case Study: Missing the Boat on IP Protection

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- **Rush to get money:**

- Inventor needs the patents to get the money and the money to get the patents
- In a rush to get funding may disclose or offer invention for sale violating absolute novelty
- US has a one-year grace period from public disclosure or offer for sale of the invention

- **Loose lips sink ships:**

- Inventors and SMEs should file provisional patent applications before any offers for sale or public disclosures of the invention
- Inventors and SMEs should require NDAs before any offers for sale or public disclosures of the invention
- Inventors and SMEs should only provide information on a “need-to-know” basis with respect to any offers for sale or public disclosures of the invention



# New Inventorship & Ownership Models: OU812

## Open Innovation Engine

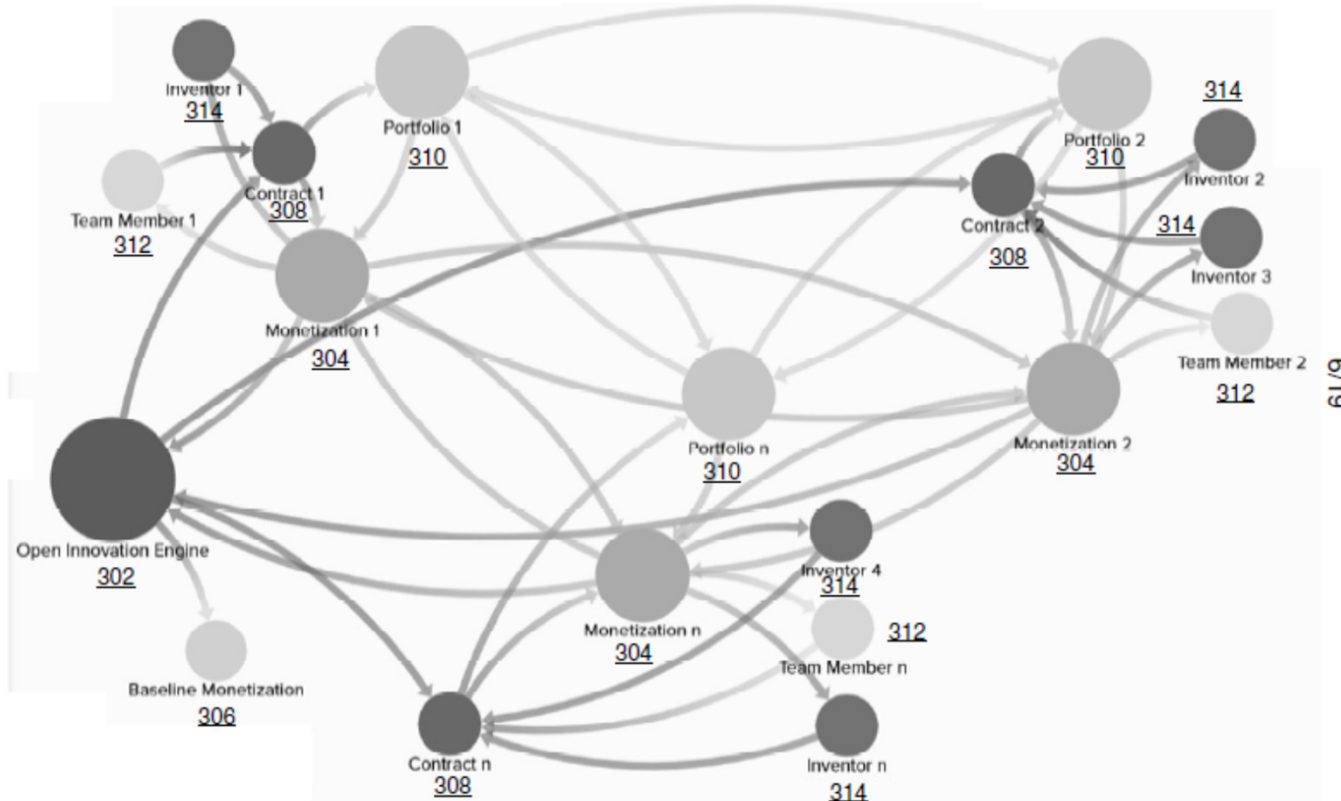


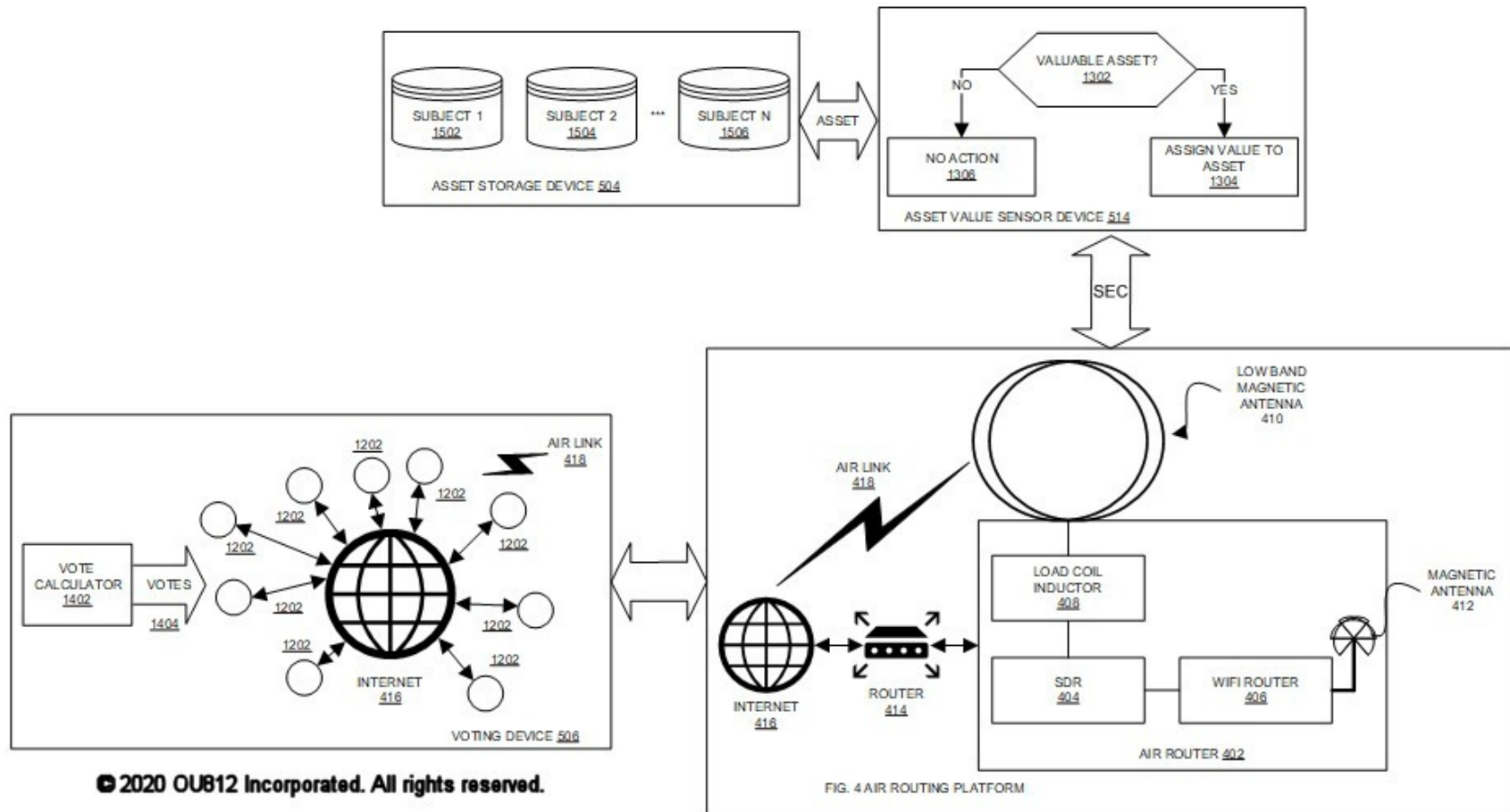
FIG. 3A OPEN INNOVATION ECOSYSTEM

300

U.S. and PCT patents and applications pending.



# OU812 Open Innovation Engine



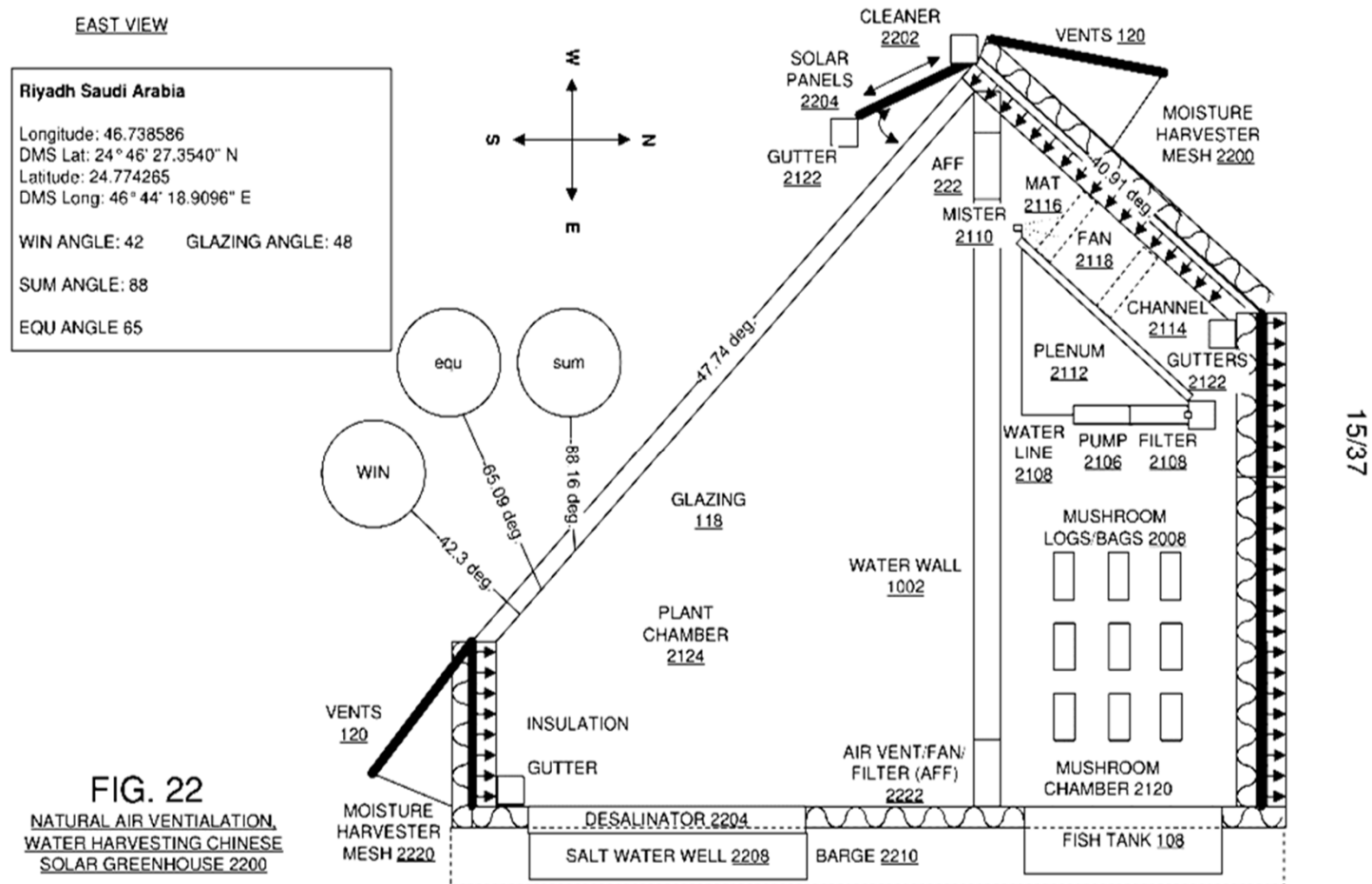
U.S. and PCT patents and applications pending.

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# OU812 Open Innovation Engine: Case Study: From Greenhouse to Skyscraper



U.S. and PCT patents and applications pending.



# Case Study: From Greenhouse to Skyscraper

**DREAM HABITAT**

**GREEN**  
and  
Energy Efficient  
Structures

CLOSED LOOP ECO SYSTEM

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U.S. and PCT patents and applications pending.

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# Inventorship & Ownership Summary

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	<b>INVENTORSHIP</b>	<b>OWNERSHIP</b>
<b>UNIVERSITY</b>	Researchers/Students are inventors	University is assignee, researchers/students get awards and/or royalties
<b>GOVERNMENT</b>	Employees are inventors	Government is assignee, employees get awards and/or royalties
<b>SME</b>	Employees are inventors	Company is assignee, employees get awards and/or royalties
<b>SOLE INVENTOR(S)</b>	Individuals are inventors	Individuals own all rights
<b>COMPLEX MIX</b>	Researchers, employees and/or individuals are inventors	University, Government, Company, Individuals are assignees and researchers, employees and/or individuals get awards, royalties and/or sole ownership
<b>OU812 OPEN INNOVATION</b>	Researchers, employees and/or individuals are inventors	Researchers, employees and/or individuals are assignees and University, Government, Company and/or Individuals get royalties and/or partial ownership



# Innovation Searching

patSnap Search Workspace aquaponic greenhouse 231 Help Center

231 total records Analyze Landscape Insights Export Set Alerts Save to Workspace

Change view Copy Query Save Query Order by most relevant

Publication Number	Title	Legal Status & Events	Current Assignee	Inventor Name	Application Date	Publication Date
1 • US8291640	Aquaponic system for vegetable and fish production	Non-payment Transfer	FORSCHUNGSVERBUND BERLIN E. V.	KLOAS, WERNER RENNERT, BERNHARD VAN BALLEGOOY, CHRISTOPH +1	27 Oct 2008	23 Oct 2012
2 • US20110131880A1	Aquaponic system for vegetable and fish production	Non-payment Transfer	FORSCHUNGSVERBUND BERLIN E. V.	KLOAS, WERNER RENNERT, BERNHARD VAN BALLEGOOY, CHRISTOPH +1	27 Oct 2008	09 Jun 2011
3 • US20160095301A1	Closed loop fish and plant farming structure and method	Withdrawn Transfer	MARINER FARMS, LLC	CARMAN, BRUCE	02 Oct 2015	07 Apr 2016
4 • AU2008361178B2	Aquaponic system for vegetable and fish production	Ceased	FORSCHUNGSVERBUND BERLIN E. V.	KLOAS, WERNER RENNERT, BERNHARD VAN BALLEGOOY, CHRISTOPH +1	27 Oct 2008	15 Dec 2011
5 • CA2708247A1	Aquaponic facility for vegetable and fish production	Non-payment Transfer	FORSCHUNGSVERBUND BERLIN E. V.	KLOAS, WERNER RENNERT, BERNHARD VAN BALLEGOOY, CHRISTOPH +1	27 Oct 2008	04 Mar 2010
6 • CA2708247C	Aquaponic facility for vegetable and fish production	Non-payment Transfer	FORSCHUNGSVERBUND BERLIN E. V.	KLOAS, WERNER RENNERT, BERNHARD VAN BALLEGOOY, CHRISTOPH +1	27 Oct 2008	22 Jan 2013

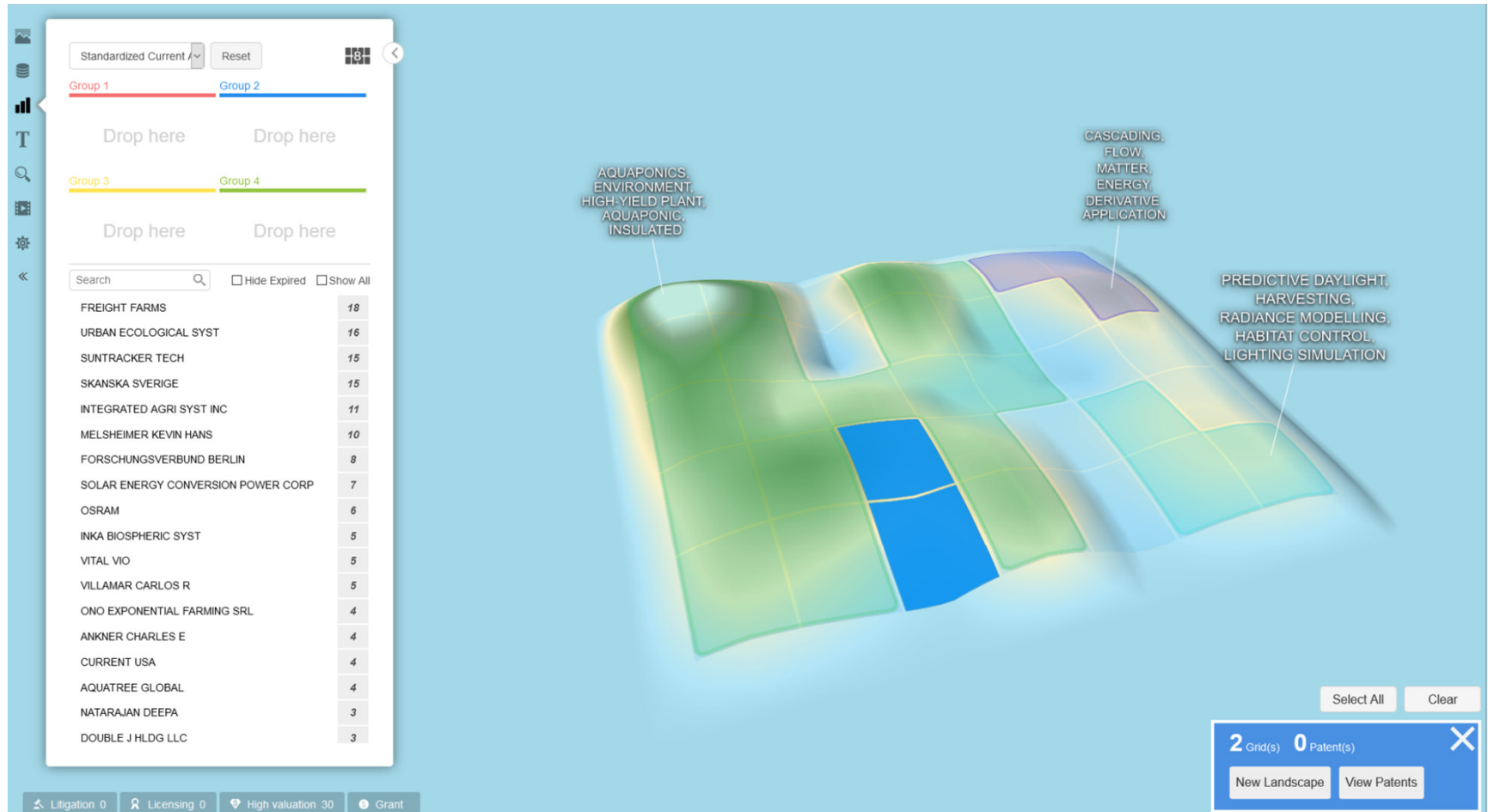
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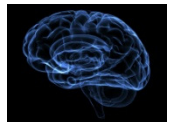
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# Innovation Analysis



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*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.

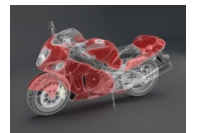
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**Carlos R. Villamar, J.D., M.S.E.E., B.S.E.E.**

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.

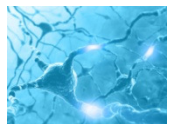


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Mr. Villamar's expertise covers a wide variety of technologies, including wired, wireless, optical, terrestrial broadcast and satellite communications, neural networks, fuzzy logic and artificial intelligence, encryption, digital signal processing, 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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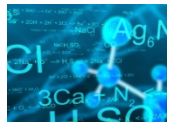


Dr. Barbara Villamar is Of Counsel to **The Villamar Firm**.\*

**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:**

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[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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