

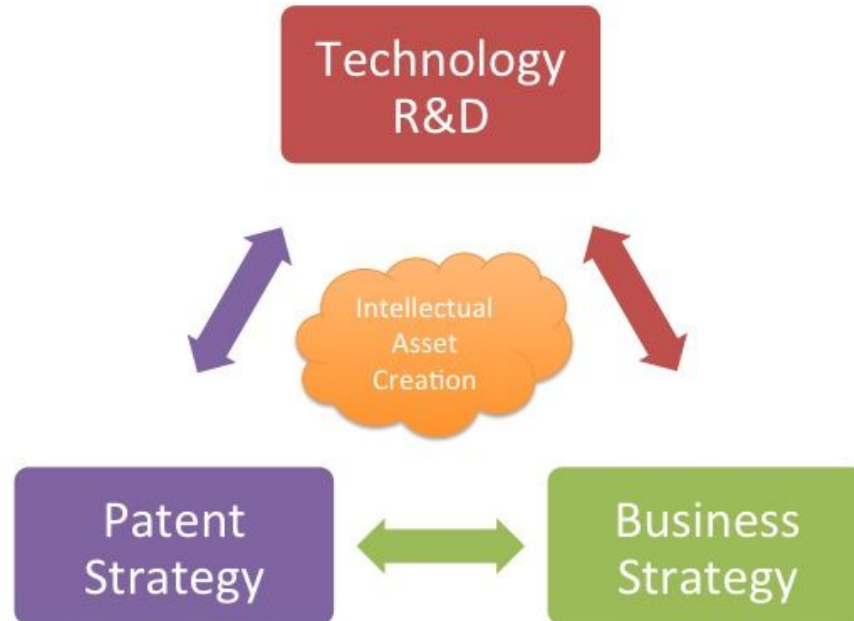


Using Patents and IP to Drive Business Value

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Business Objectives Should Drive IP Strategy



Business Objectives Drive IP Strategy in Large Companies

And should drive IP strategy in small emerging companies.

Consider how IP Assets can drive ROI for your firm

Chart 8: Select up to five items that most closely describe your organization's highest priorities regarding IP Operations.





Agenda

- Why IP ends up being Concrete Shoes?
- When IP Can Be a Lifeline?
- How to Make Informed Decisions



IP as Concrete Shoes

Poor IP Strategy Can Weigh Down Your Business



Poor IP Strategy Can Sink Your Business

Useless IP Assets waste valuable resources

- Patents are costly and time consuming to Obtain
- Poor drafting limits protection
- Territorial Protection requires a new patent in each country of interest
- There are many avenues to invalidate an issued patent

Poor Management Shrinks Business Value

- Joint Ownership without Single Voice?
- Failure to Assign Patents to Company
- Possible Exposure of Trade Secrets
- Showcasing Competitive Advantage



IP as a Lifeline

IP Assets Can Help Your Firm Obtain Capital and Encourage Business Relationships



IP Can Drive Funding and Relationships

Fundraising

- Venture Capital
- Litigation Finance
- Loan Collateral
- Field of Use Licensing

Relationships

- Customer
- Joint Ventures
- Cross-Licensing
- Negotiation Leverage
- Defensive Strategies



IP Can Encourage Business Relationships



Joint Ventures

- Typically the each company contributes something of value to a newly formed entity, one designed to oversee the new business endeavor.
- Each company has access to capital, technical, management and intellectual property (IP) resources. To expand their respective business capabilities
- Allows the parties to **attain otherwise unavailable rights** to if either acts alone.
- **Patent Rights can be a key asset driving consideration when engaging in a joint venture.**
- Care should be taken in forming these relationships as to ensure each party has access to, and receives value from the relationship.



Cross-Licensing

- Two (or More) parties **grant each other access to patent rights** that the other needs
- Examples:
 - **Google and Samsung** have a broad cross-licensing agreement for patents related to the Android OS
 - **Patent Pools** - Multiparty portfolios of patents, often standard essential patents
- Key benefits include:
 - Bundling complementary technologies
 - Enhancing interoperability
 - Access to new markets and Monetization of unused or underused assets
 - Lower development/production costs.
- Cross-licensing schemes may create extra administrative headaches
- Can also be a **barrier to entry** for startups and may receive **regulatory scrutiny**.



Patents Can Encourage Customers to Purchase

- Patents can be a **key indicator of quality** in product marketing
- Can provide assurance that your product will not become obsolete due to a competitor
- Can reduce customer **risk of patent infringement**
 - Particularly important in patent-centric industries such as pharmaceuticals.⁴
 - Patent Indemnification from the Uniform Commercial Code



Defensive Portfolios/Strategies Can Be Key Bargaining Chips In Negotiations

- Bargaining Chip if Threatened with Patent Infringement
- May Lead to Better Settlement Terms
- Opportunity to Cross-License Technology from Competitor that Would Not Otherwise be Available
- Also may be available as counterclaims if competitor initiates litigation.
- May also prevent a competitor from obtaining exclusivity for their developments.

Patents can Provide a Return on R&D, even if your Products aren't Successful...



1973



1989

Images from James Estrin *Kodak's First Digital Moment*, The New York Times (Aug. 12, 2015)
(available online at <https://lens.blogs.nytimes.com/2015/08/12/kodaks-first-digital-moment/>)



Patents can Provide a Return on R&D, even if
your Products aren't Successful...

\$3 Billion

Amount Kodak earned over from licensing its digital camera patents before its 2012 bankruptcy.

* Neil Soni, *The Startup Gold Mine*, Pg. 12 (2018)

** *Wired*, *Kodak Sells Digital Camera Patents to Apple, Google, Other Tech Giants* (Dec. 19, 2012) (available online at <https://www.wired.com/2012/12/kodak-patents/>)



Raising Capital Using Your IP Portfolio

59%

Increase in probability of raising VC funding for startups
after approval of their first patent.

“Patents are particularly beneficial to **early-stage startups, those founded by inexperienced entrepreneurs,** those located in states with a large startup population, and those operating in the IT sector.”

“This evidence suggests that patents help **mitigate information frictions between startups and investors**, acting as catalysts that help set startups on a path to success and **more than doubling their unconditional IPO probability.**”



Patents and Venture Capital

- VC funds can view patents as de-risking an investment
- Related to Venture-backed Exits, a “positive effect of patents on firm success for life science firms but not for information technology firms. Within the sample of life science firms, the effect of having any patent is substantially larger than the effect of having” multiple patents. That is, “the first patent is considerably more important than subsequent ones” on evaluating exit valuations in life sciences firms.¹
- It is important to know what venture capitalists in your industry/geography look for from a company’s IP portfolio.

1. Patrick Gaulé, *Patents and the Success of Venture-Capital Backed Startups: Using Examiner Assignment to Estimate Causal Effects* (July 2015) (available online at <https://www.cerge-ei.cz/pdf/wp/Wp546.pdf>)



Patents Are A Key Criteria for SBIR Funding

SBIR Phase I - Feasibility

- Average awards between \$150k-\$225k (depending on agency)

SBIR Phase II - Commercialization Plan

- Patents are an enumerated consideration for SBIR Phase II funding for NIH reviewers.

\$850,000

Mean Value of SBIR Phase II Grant from NIH



* 2006-2008 (https://grants.nih.gov/grants/peer/r_awards/sbir-sttr_guide_for_reviewers.pdf)



Patents Can Serve As Loan Collateral

- Patents Have the Attributes of Property
- Strong Bankruptcy Protection Lessens the Risk of Lending to Patenting Companies
 - More Attractive Borrowing Interest Rates
 - Studies of show a correlation between patents pledged as collateral and increases in firms' R&D Expenditures



Example - Mimosa Networks

2014 - Raised \$20M (on \$126M valuation) from New Enterprise Associates, and Oak Investment Partners.

2017 - Assigned Security Interest to Ally Bank

2018 - Acquired by Airspan Networks for undisclosed sum

Date	Code	Title	Description
2014-03-19	AS	Assignment	Owner name: MIMOSA NETWORKS, INC., CALIFORNIA Free format text: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNORS:HINMAN, BRIAN;GUREVICH, DAVID;KESKINEN, MIKA;AND OTHERS;SIGNING DATES FROM 20131031 TO 20140124;REEL/FRAME:032478/0364
2015-03-18	STCF	Information on status: patent grant	Free format text: PATENTED CASE
2016-04-14	AS	Assignment	Owner name: MIMOSA NETWORKS, INC., CALIFORNIA Free format text: CHANGE OF ADDRESS;ASSIGNOR:MIMOSA NETWORKS, INC.;REEL/FRAME:038428/0666 Effective date: 20160328
2017-11-13	AS	Assignment	Owner name: ALLY BANK, NEW YORK Free format text: SECURITY INTEREST;ASSIGNOR:MIMOSA NETWORKS, INC.;REEL/FRAME:044102/0979 Effective date: 20171026
2018-08-29	MAFP	Maintenance fee payment	Free format text: PAYMENT OF MAINTENANCE FEE, 4TH YR, SMALL ENTITY (ORIGINAL EVENT CODE: M2551); ENTITY STATUS OF PATENT OWNER: SMALL ENTITY Year of fee payment: 4
2018-11-21	AS	Assignment	Owner name: PACIFIC WESTERN BANK, AS AGENT, NORTH CAROLINA Free format text: ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ALLY BANK;REEL/FRAME:047564/0630 Effective date: 20181120 Owner name: PACIFIC WESTERN BANK, AS AGENT, NORTH CAROLINA Free format text: SECURITY INTEREST;ASSIGNOR:MIMOSA NETWORKS, INC.;REEL/FRAME:047564/0485 Effective date: 20181120

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The screenshot shows a Google Patents search for "(mimosa) assignee:(Pacific Western Bank, As Agent)". The search results are sorted by Relevance and show 15 results. The top three results are:

- Enclosure for radio, parabolic dish antenna, and side lobe shields**
WO US • US93362629B2 • Brian L. Hinman • Mimosa Networks, Inc.
Priority 2013-03-06 • Filed 2014-03-05 • Granted 2016-06-07 • Published 2016-06-07
Enclosures for radios, parabolic dish antennas, and side lobe shields are provided herein. A dish antenna includes a parabolic circular reflector bounded by a side lobe shield that extends along a longitudinal axis of the dish antenna in a forward direction forming a front cavity, and a sidewall...
- Channel optimization in half duplex communications systems**
WO US • US9388485B2 • Brian Hinman • Mimosa Networks, Inc.
Priority 2014-01-24 • Filed 2016-07-29 • Granted 2018-02-06 • Published 2018-02-06
Channel Optimization in Half Duplex Communications Systems is provided herein. Methods may include obtaining at a first terminal, radio frequency (RF) spectral information local to the first terminal, analyzing at the first terminal, RF spectral information for a second terminal that is not co-...
- Wireless repeater**
US • US0752566S1 • Brian Hinman • Mimosa Networks, Inc.
Priority 2014-09-12 • Filed 2014-09-12 • Granted 2016-03-29 • Published 2016-03-29
...design while all other broken lines including the "m" are directed to environment and are for illustrative purposes only: the broken lines form no part of the claimed design. The center "m" logo in FIGS. 1, 2, and 4-7 forming part of the disclosure is a registered trademark of Mimosa Networks, Inc.

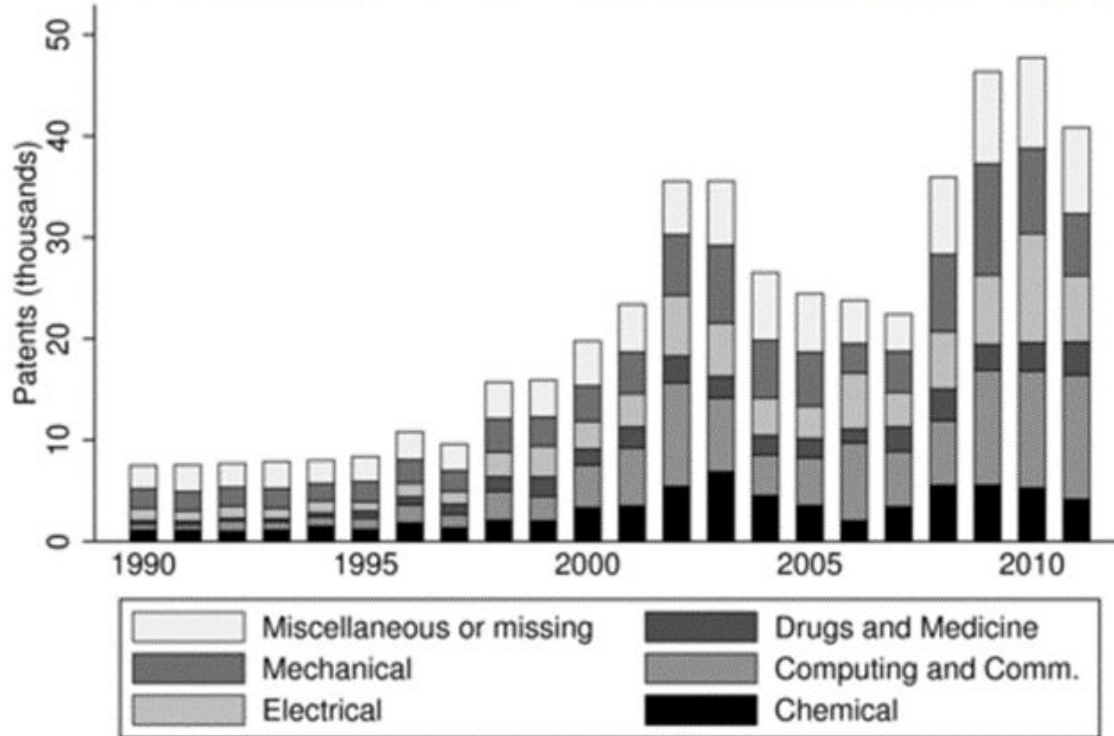
On the right side of the search results, there is a bar chart titled "Top 1000 results by filing date" and a table titled "Relative count of top 5 values".

Top 1000 results by filing date

Relative count of top 5 values

Assignees	Inventors	CPCs
Mimosa Networks, Inc. H04W72/04 H01Q1 H04W72 H04W72/00		93.3%
Brian L. Hinman H01Q11/08 H04B H01Q11/02 H04B7/00		6.6%

Patents pledged as collateral, 1990–2011, by category



~400,000

Number of Patents with a Pledged Security Interest from 2016-2019

**double the amount with a pledged security interest from 2012-2015*



Field-of-Use Licensing to Other Markets

- Patents Have the Attributes of Property
- Allows for alternative revenue streams for companies, particularly in adjacent or non-core markets while pursuing core market strategies:
 - Example: MRI companies licensing MR technologies for Oil & Gas Exploration



Use Data to Decide if IP Will Drive Value for Your Business



Example: **Understand How VCs Value IP**

- Who are the Most Active Investors for Companies Like Yours?
- How Often Do Portfolio Companies of these Investors File Patent Applications?
- Do Valuations Differ Based on Patent Portfolio Size?³
 - Data shows that California companies patent on average more than in other states
 - Venture-backed Companies patent more than others
 - Startups with patent assets tend to have their first application filed before even receiving any reported funding.
 - Data shows a significant positive relationship between patent assets and both
 - receiving investment **and**
 - being acquired.

It is critical to know how those
funding your business view IP,
and there is **no single best
strategy.**

When Aligned with Business
Strategy, Patents can **Drive**
Additional **Business Value**



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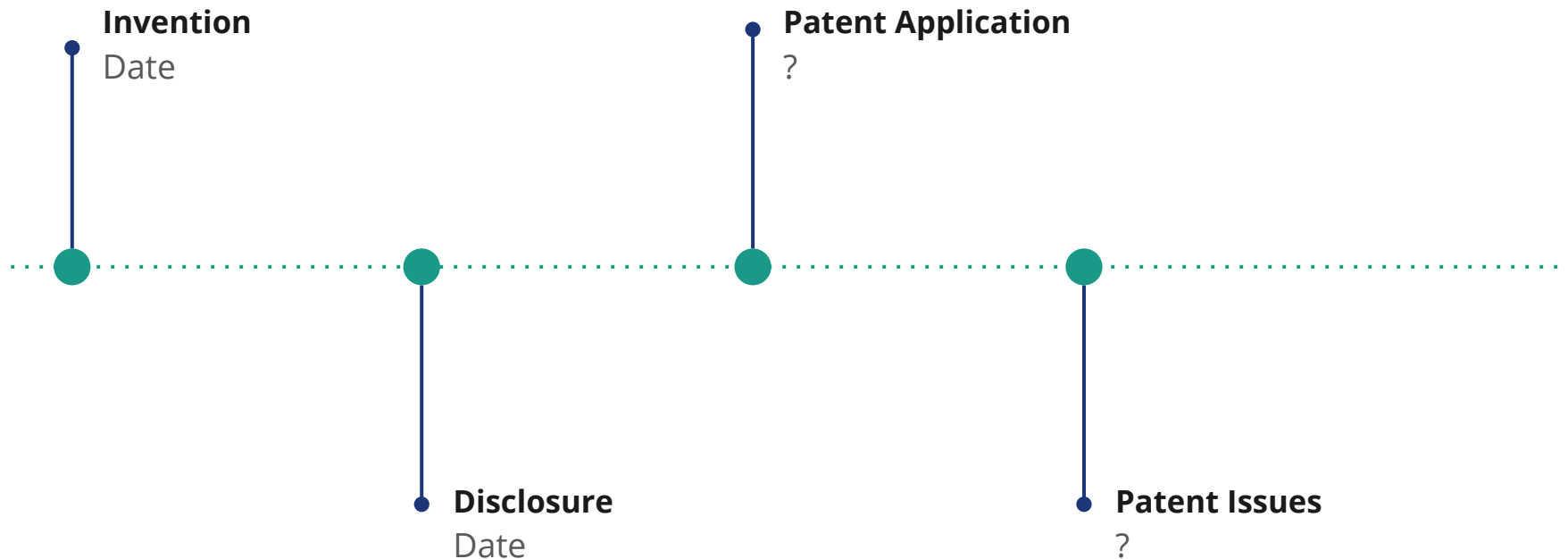
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Technology Development/IP Process





References

1. Joan Farre-Mensa, et al., *Do Patents Facilitate Entrepreneurs' Access to Venture Capital?* (available at <http://www.research.mbs.ac.uk/accounting-finance/Portals/0/Users/002/02/2/Do%20Patent%20Facilitate%20Entrepreneurs%20Access%20to%20Venture%20Capital%202016.pdf>)
2. Patrick Gaulé, *Patents and the Success of Venture-Capital Backed Startups: Using Examiner Assignment to Estimate Causal Effects* (available at <https://www.cerge-ei.cz/pdf/wp/Wp546.pdf>)
3. Celia Lerman, *Patent Strategies of Technology Startups: An Empirical Study* (available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2610433)
4. Chandra Mohan, et al., *Patents - An Important Tool for Pharmaceutical Industry* (<http://www.rroij.com/open-access/patents--an-important-tool-for-pharmaceutical-industry-.php?aid=34351>)