

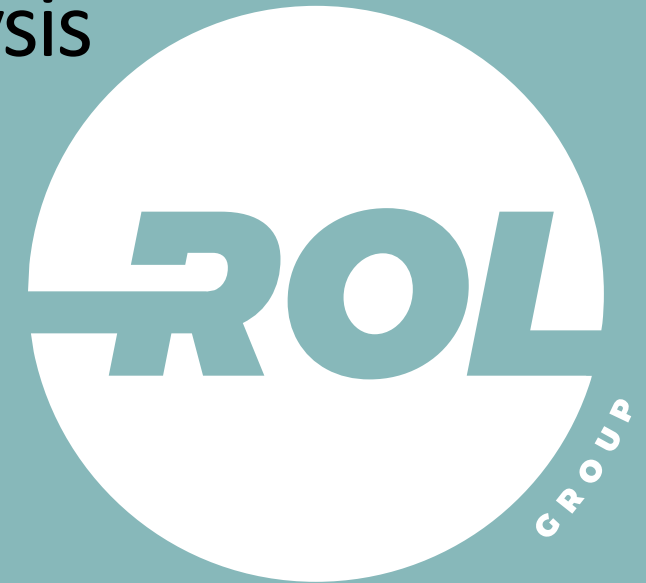
You Won't Believe What They Sold!

Lessons From 10 Years of Patent Market Analysis

(And a Little SPIF)

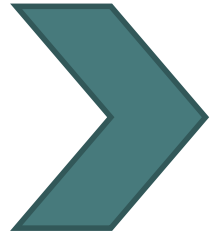
Kent Richardson

~~December 15, 2021, January XX, 2022~~
March'ish 2022...probably
(Thanks, COVID!)



Contact Information:

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info@richardsonoliver.com

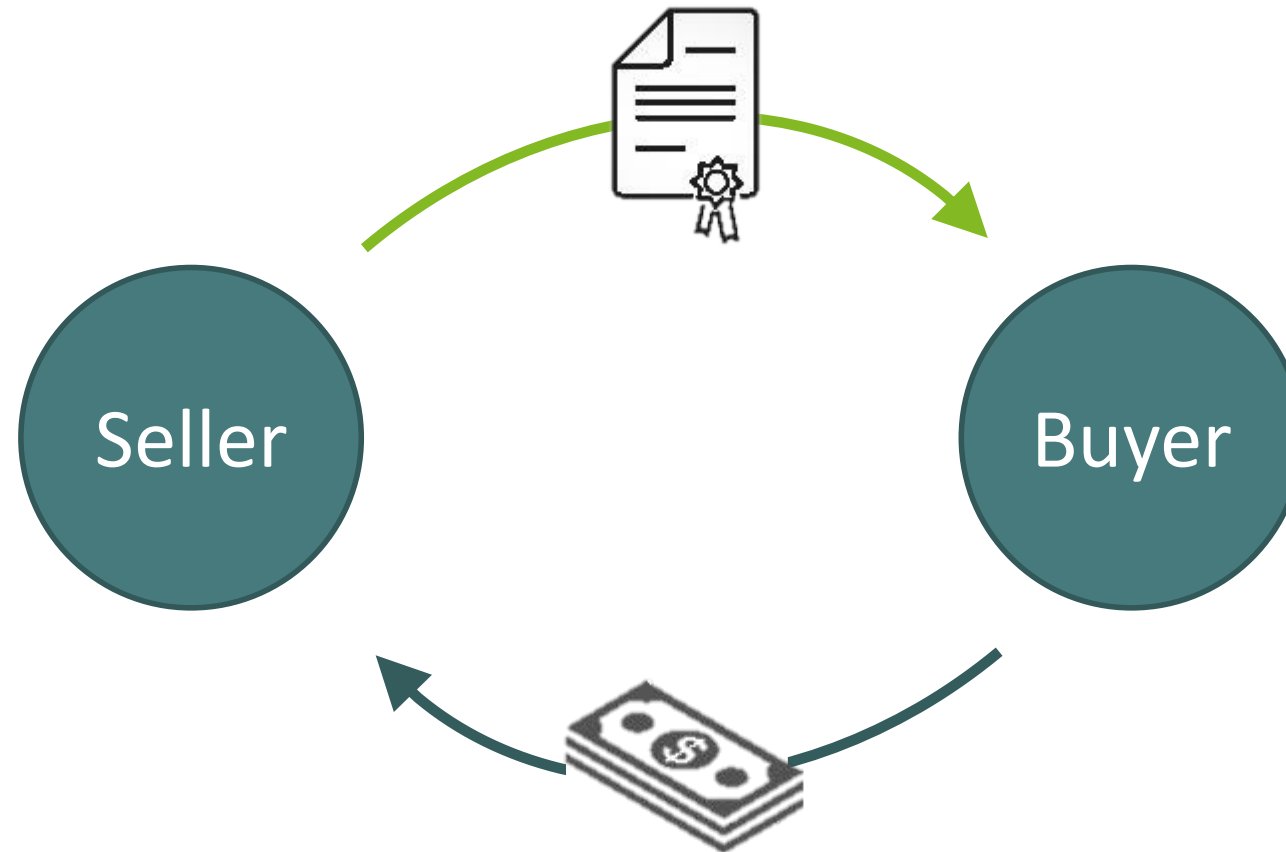


Why a market for buying/selling?

What's going on?

The future...

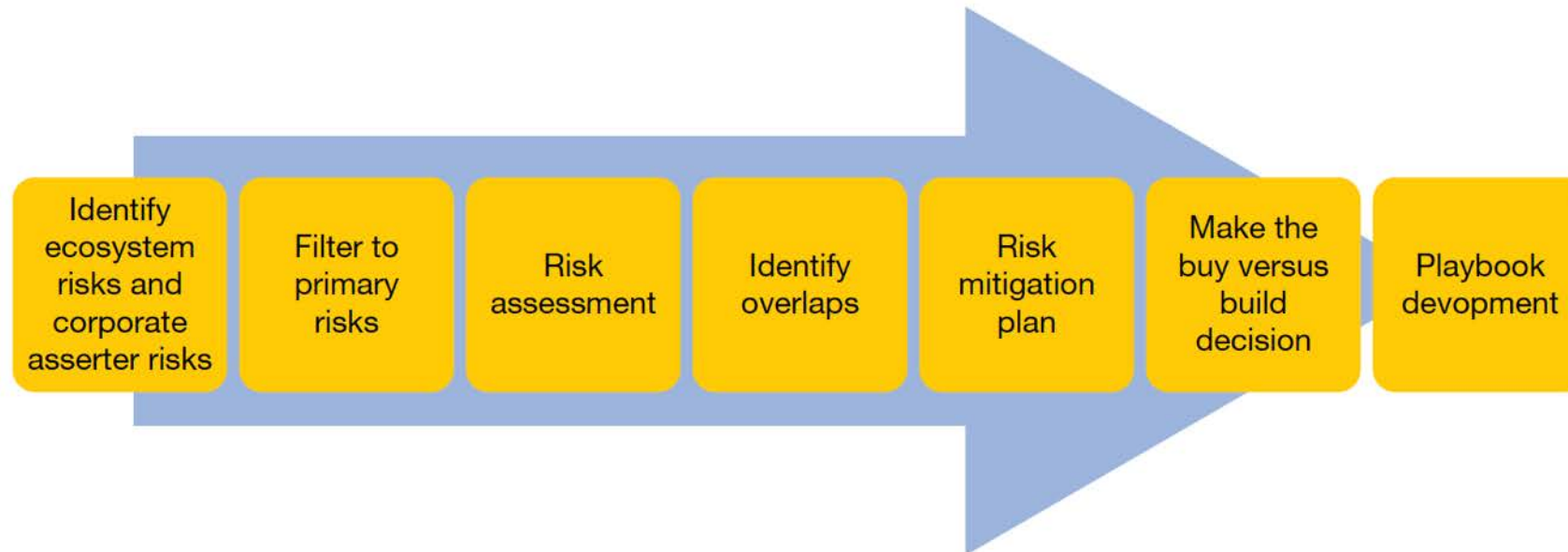
What's the Secondary Patent Market?



Why Care? Strategic Counter-Assertion Works



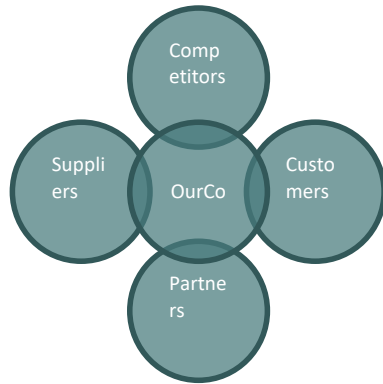
Figure 1. **Process flow for creating a counter-assertion-ready patent portfolio**



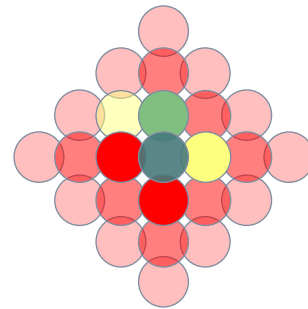
“The Strategic Counter-Assertion Model for Patent Portfolio ROI.” Richardson et. al. IAM Magazine (July 2015)

Why Care? Ecosystem of Patent Risk

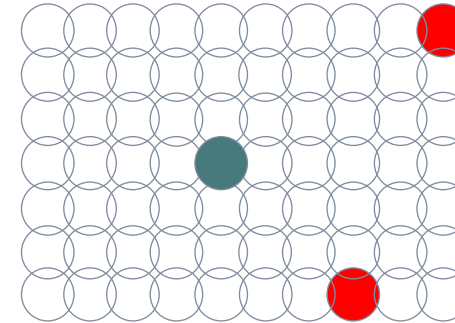
What is your business's ecosystem?



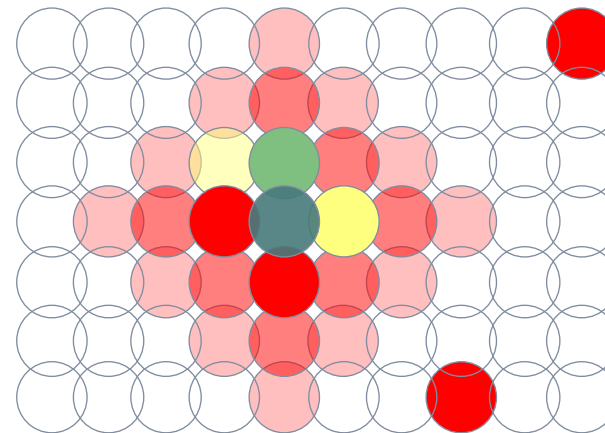
Patent threats come from your near ecosystem



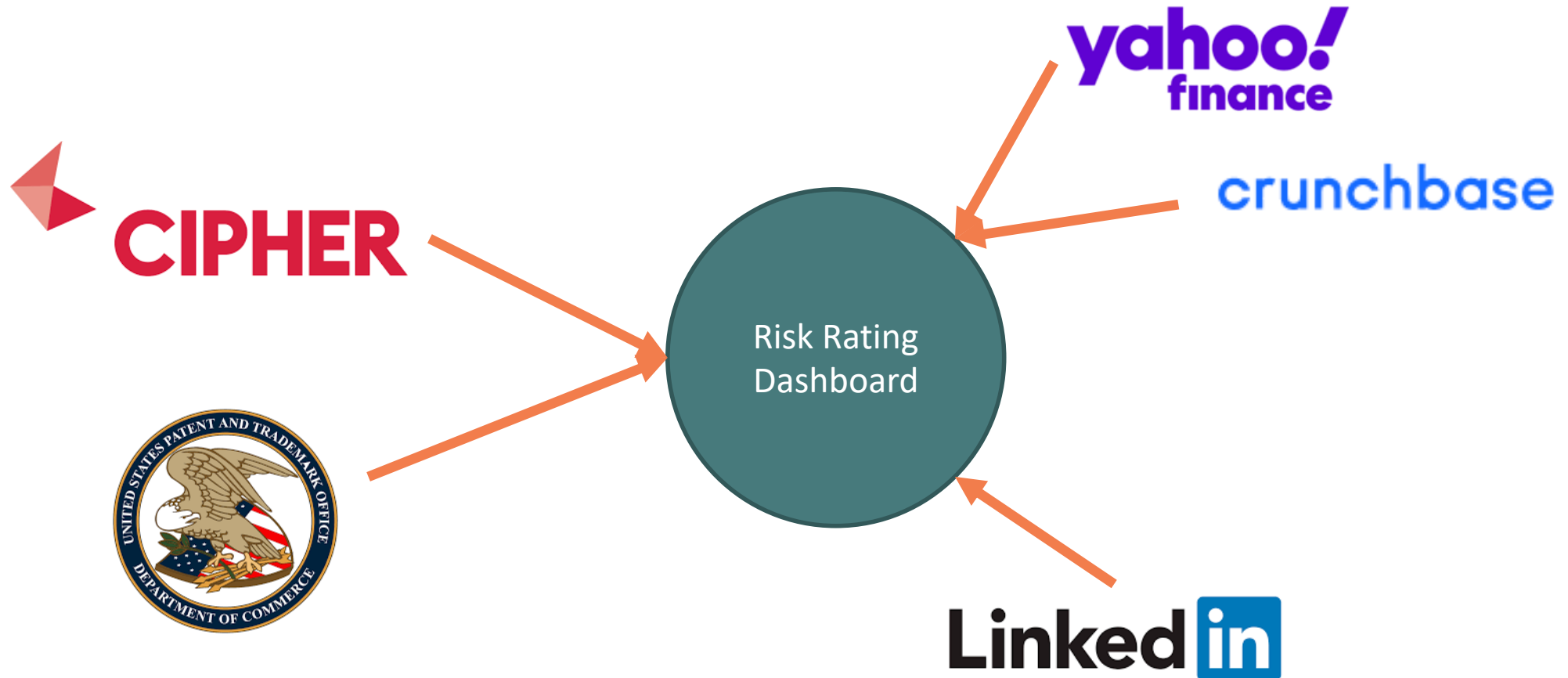
Corporate asserters



Your potential patent risk



Why Care? Predicting Risk Works



Why Care? Combining Objective and Subjective Analysis to Understand Risk



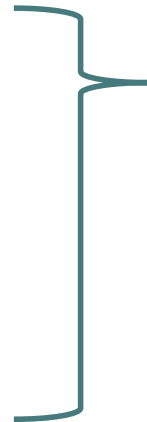
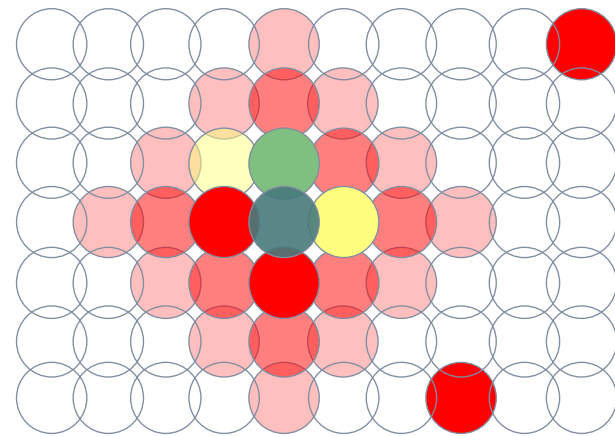
Organization	Scale	Finance	Litigation	Buy/Sell/MA/Spinout	People	Prosecution		
		Finance Rank	Litigation Rank	Buy/Sell Rank	People Rank	Prosecution Rank	Total Summed	Average
Company1	Large	-1.00	-1.00	-1.00	-0.92	-0.99	-4.32	-0.80
Company2	Large	-0.75	-1.00	-1.00	-0.33	-0.66	-3.74	-0.79
Company3	Large	-0.67	1.00	1.00	na	-0.66	0.67	-0.67
Company4	Large	-0.75	0.00	-1.00	0.11	-0.66	-2.30	-0.38
Company5	Large	1.00	-1.00	-1.00	0.32	-0.99	-1.67	-0.36
Company6	Large	-0.75	0.00	0.00	0.32	-0.66	-1.09	-0.18
Company7	Large	0.00	-1.00	0.00	0.11	-0.66	-1.55	-0.18
Company8	Large	na	0.00	0.00	-0.32	0.00	-0.32	-0.16
Company9	Large	0.75	0.00	-1.00	0.98	-0.33	0.40	-0.02
Company10	Large	0.75	0.00	-1.00	0.32	-0.66	-0.59	-0.01
Company11	Large	-0.50	0.00	0.00	0.44	-0.33	-0.39	0.02
Company12	Large	1.00	0.00	0.00	-0.11	-0.66	0.23	0.04
Company13	Large	-0.50	0.00	0.00	0.77	-0.33	-0.06	0.07
Company14	Medium	na	0.00	-1.00	0.65	0.33	-0.02	0.10
Company15	Large	0.25	1.00	-1.00	na	0.00	0.25	0.15
Company16	Large	0.25	0.00	1.00	0.44	-0.33	1.36	0.14
Company17	Small	na	0.00	1.00	0.11	0.00	1.11	0.22
Company18	Medium	0.33	0.00	0.00	0.65	-0.33	0.66	0.19
Company19	Large	0.00	1.00	0.00	-0.32	0.66	1.34	0.22
Company20	Small	na	1.00	1.00	0.55	-0.33	2.22	0.34
Company21	Medium	-0.25	0.00	1.00	0.77	0.33	1.85	0.31
Company22	Medium	na	0.00	0.00	0.32	0.99	1.31	0.46
Company23	Small	na	1.00	1.00	-0.11	0.99	2.88	0.58
Company24	Small	na	1.00	1.00	na	0.99	2.99	0.75
Company25	Large	1.00	1.00	1.00	0.11	na	3.11	0.62
Company26	Medium	na	1.00	1.00	0.44	na	2.44	0.86
Company27	Small	na	1.00	1.00	0.98	0.66	3.64	0.73
Company28	Small	na	1.00	1.00	0.98	0.66	3.64	0.73

More risk

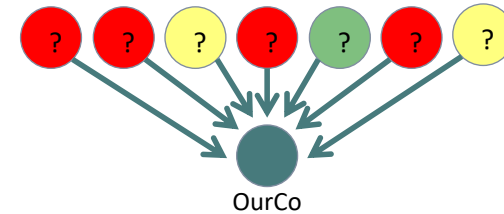
Less risk

Why Care? Ecosystem of Patent Risk

Your potential patent risk



Which risks are you going to address?



You've figured out where your risks are...



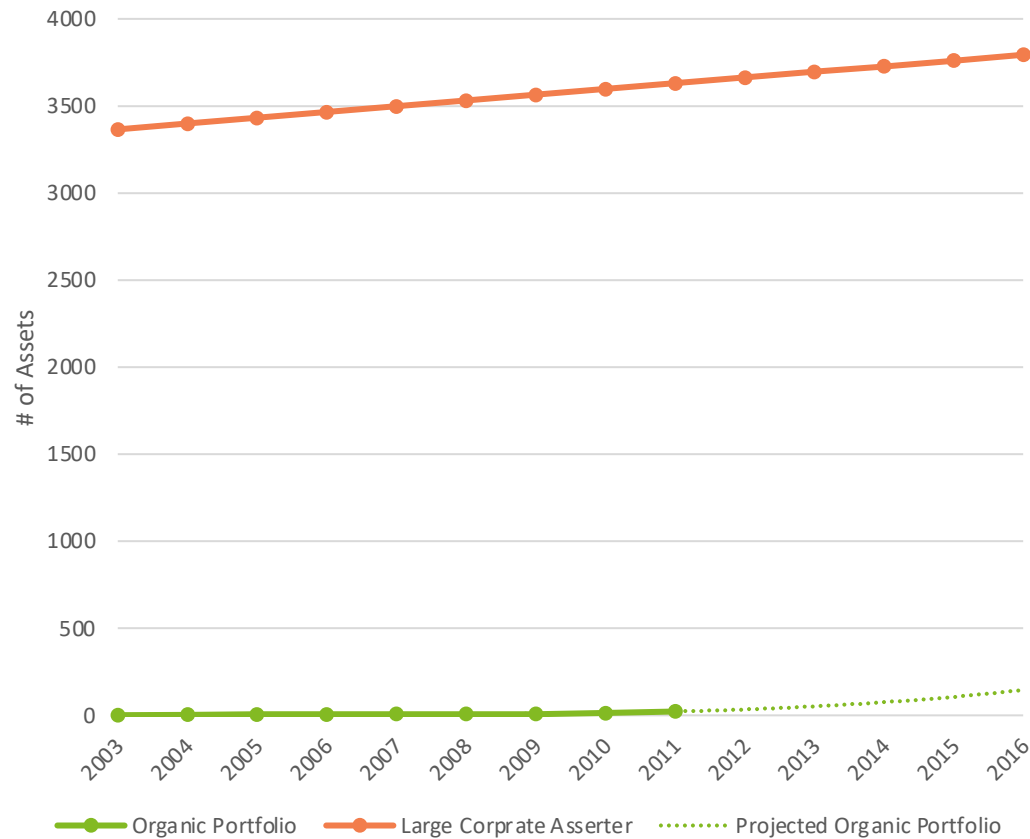
Why Care?

LinkedIn addressed patent deficit with bought and organic growth



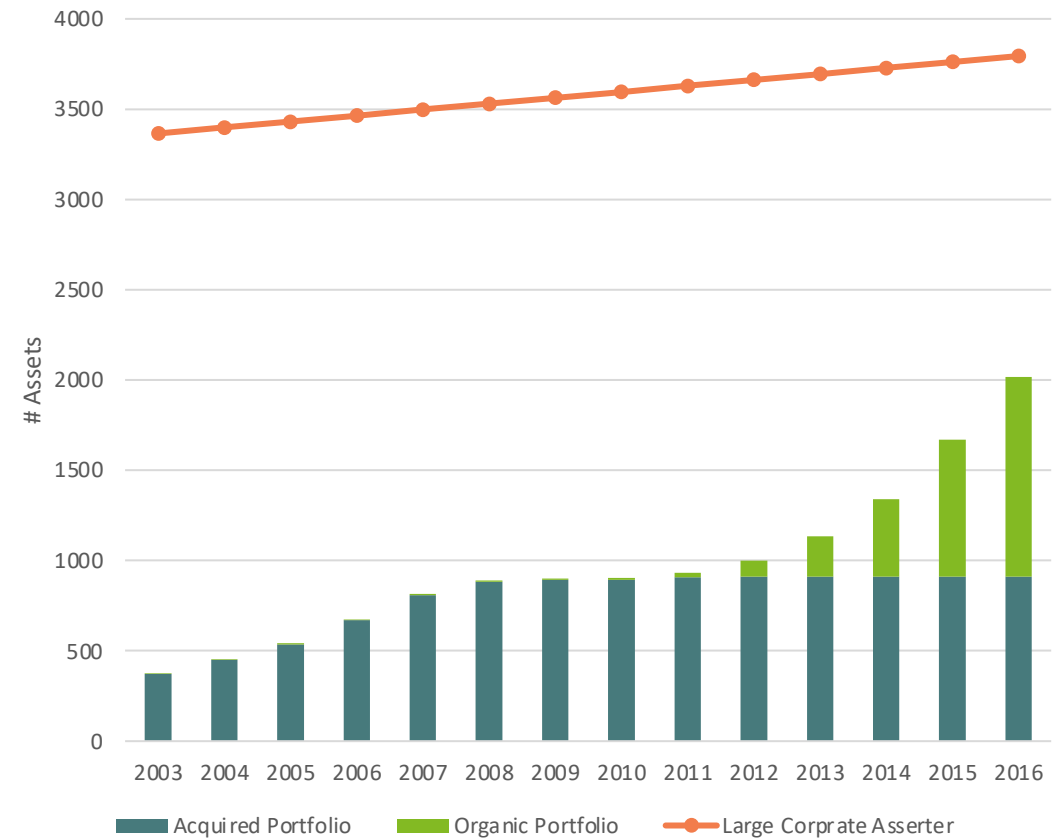
Pre-Implementation

Portfolio Growth by Priority Year



Post Implementation

Total Portfolio by Priority Year



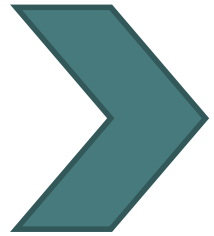
Facebook sues BlackBerry over patent infringement of voice-messaging tech

Sarah Wells @saraheswells / 9:48 AM PDT • September 5, 2018

Wells, Sarah. 2018. "Facebook Sues BlackBerry over Patent Infringement of Voice-Messaging Tech." TechCrunch. TechCrunch. September 5, 2018. <https://techcrunch.com/2018/09/05/facebook-sues-blackberry-over-patent-infringement-of-voice-messaging-tech/>.

All the patents were acquired patents

Why a market for buying/selling?



What's going on?

The future...

Deal Flow



~1000 deals per year hit the market

Example Available Deal: HP Inc Portfolios

Package ID: 22-0112 - 22-0118



ML technology classifier – Active families:

	HP Inc
Imaging: Consumables	261
Imaging: Inkjet Printer and Copiers	108
Imaging: Laser Printer and Copiers	73
Imaging: Imaging Software & Drivers	41
Software: Security	39
Imaging: Scanner	31
Computer Systems and Components: Input Devices	30
Software: Graphics & Video Processing	23
Components: Power Supply and Converters	22
Computer Systems and Components: Laptop	19
Application Specific Ics: Audio and Video Processing	17
Software: Server Software	17
Consumer Electronics: Camera and Camcorder	16
Components: Heat Exchange and Cooling	15
Unrelated	124
Next 76	268
TOTAL	1,104

Family expiration range (Cipher): 10/24/2019 - 3/29/2039

Priority date range (Clarivate): 1/6/1999 - 3/29/2019

Broker summary:

7 packages from HP Inc. split as follows: Data Process - 76 families, Imaging - 32 families, Communication - 40 families, Security - 24 families, Print & Ink - 593 families, HP Computer Graphics - 46 families, Display - 204 families

Applicability and comments:

Discuss HP Inc sale

Family count: 1015

US Issued count: 941

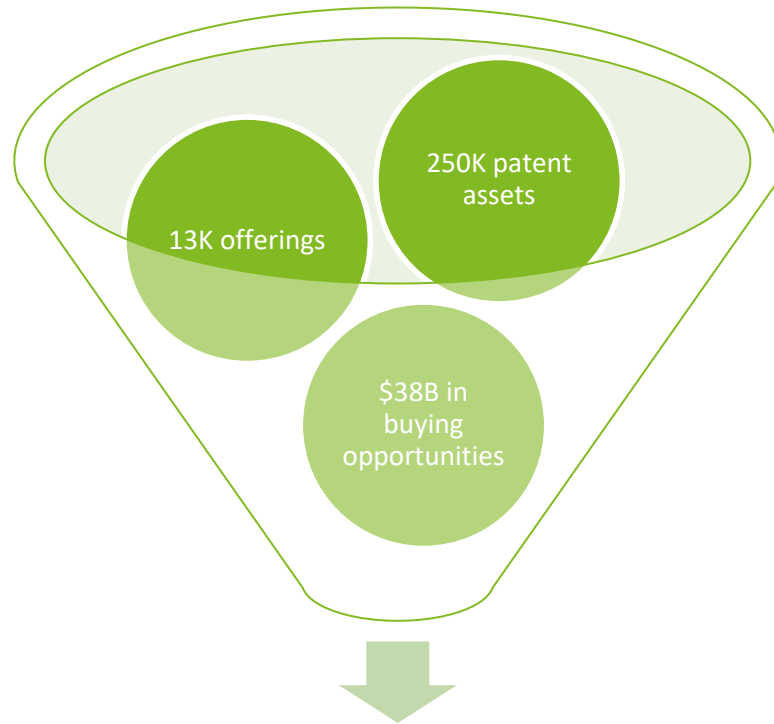
Asset count: 1031

Jurisdictions: US

Ballpark price: \$100k per family (less the bigger the amount purchase) subsets are allowed

Broker: TransactionsIP

The ROI Patent Market Report



ROI Patent Market Report



2021 is the 10th annual report

Current report covers 13,000 packages; our first report had 186 packages

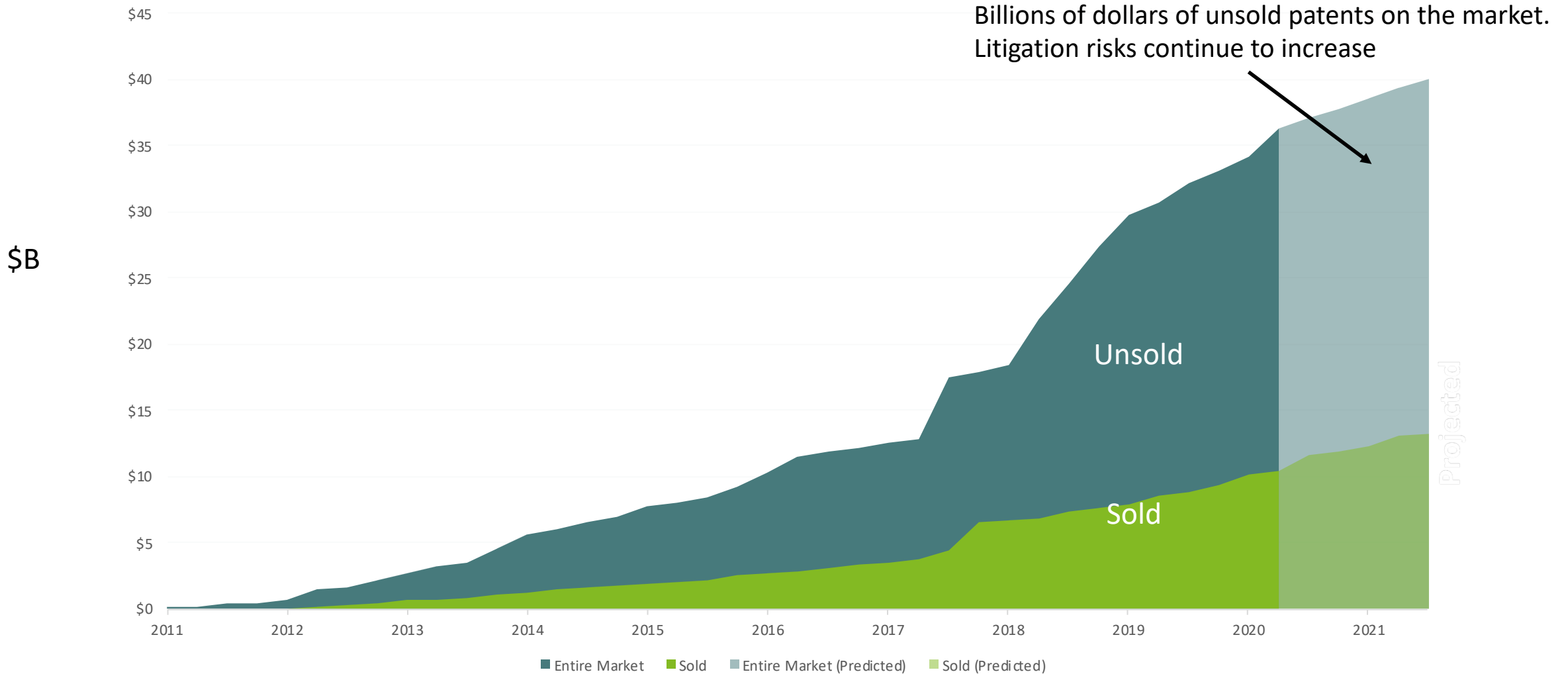
“ROI’s brokered patent market report continues to be one of the year’s most read and anticipated pieces amongst IAM’s subscriber base of global IP executives and professionals”

- Joff Wild, Editor in Chief of IAM

\$38B in Patents on the Secondary Market



Entire Market of Patents Available in Private and Brokered Market (\$B)



Ten Years Make a Difference

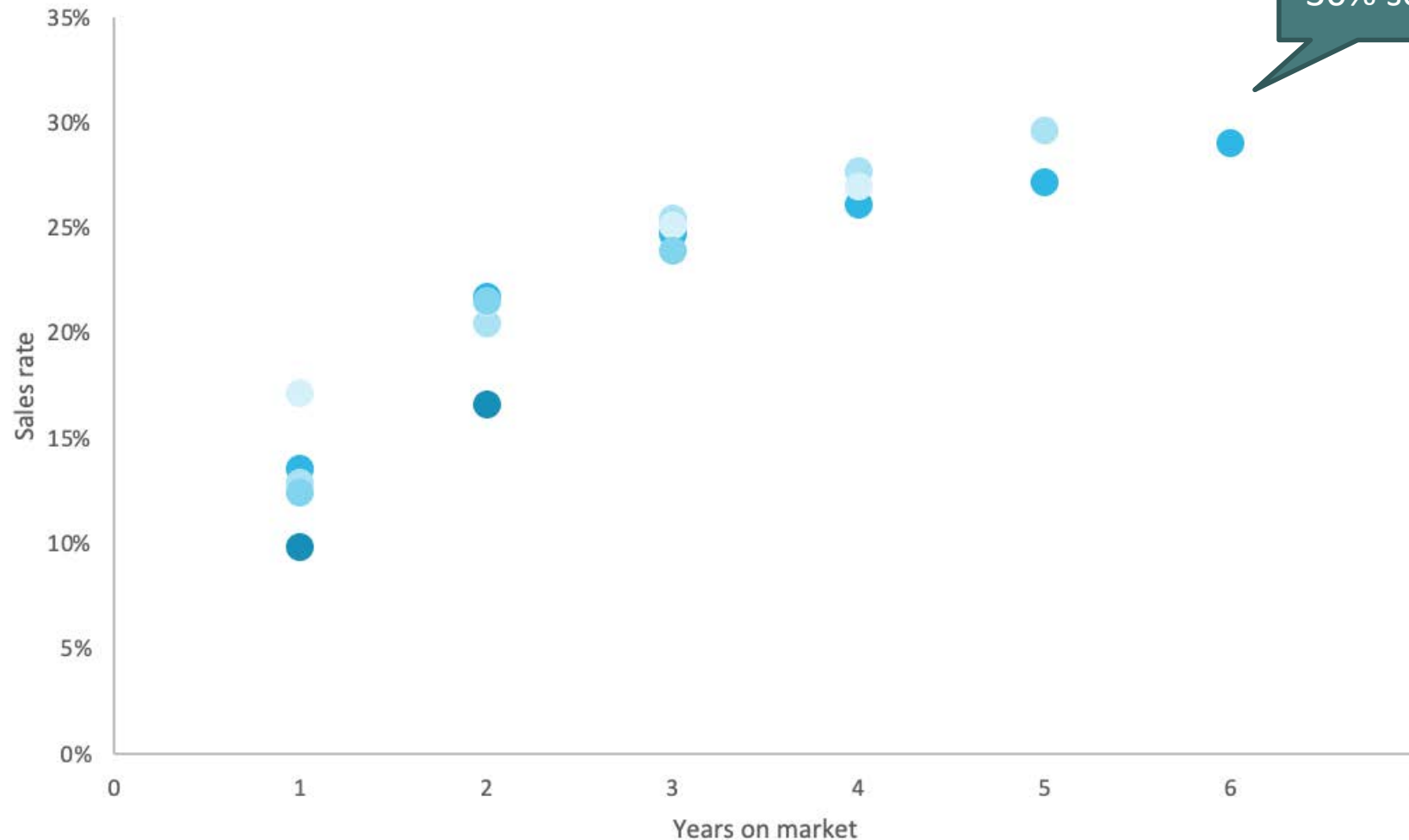


2012		2022
Brokers	Sources	Brokers IAM Market Intermediaries
Only WSJ published deals	Transactions	Multiple sources
Hidden	Pricing	10 Years of ROI annual reports Subscription service of closed deals
Only a few companies	Strategy	Regular make versus buy decision for many companies

Brokers Jobs are Tough – Sales Rates Remain Around 30%



Figure 11. Sales rate by years from package listing (2015-2019 listings)



30% sell

Sales rate top out around 30%

Old deals still sell

Brokering is a Tough Game



“I can tell you I don't have money... but what I do have are a very particular set of skills. Skills I have acquired over a very long career...”

Every Broker

Connections

Pricing

Expectations management

General sales

Broker Full Name – 5 or more packages in 2021

Adapt IP Ventures

Blackhawk Technologies, LLC

Darwin IP Advisors LLC

Dennemeyer

Dynamic IP Deals LLC

Hillco Streambank

ICAP

Iceberg

IP Approach, LLC

IP Offerings

IPInvestments Group

Morgan, Lewis & Bockius LLP

OCEAN TOMO, LLC

Red Chalk Group

Rui Zhi Ventures Limited

Tangible IP

TransactionsIP LLC

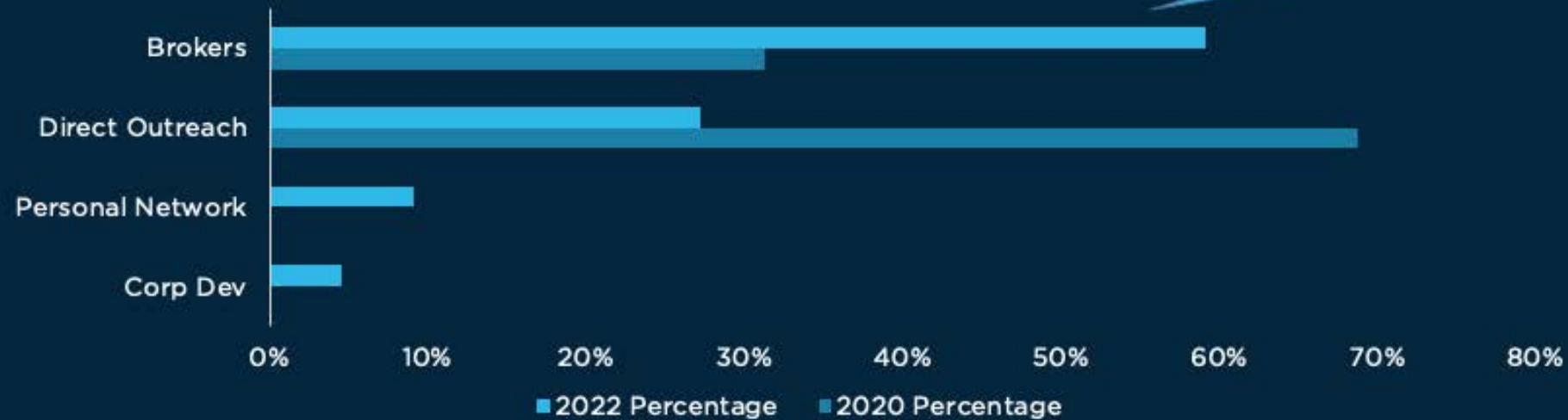
Brokers are More Favored by Buyers Today



Buyers

Q: Buyers: Where do you find your best/most interesting deals?

Best Sources of Deals



Brokers are more popular

What's the Average Asking Price for a *Patent Asset?



\$146,000

*Patent asset is a patent or patent application listed in a package

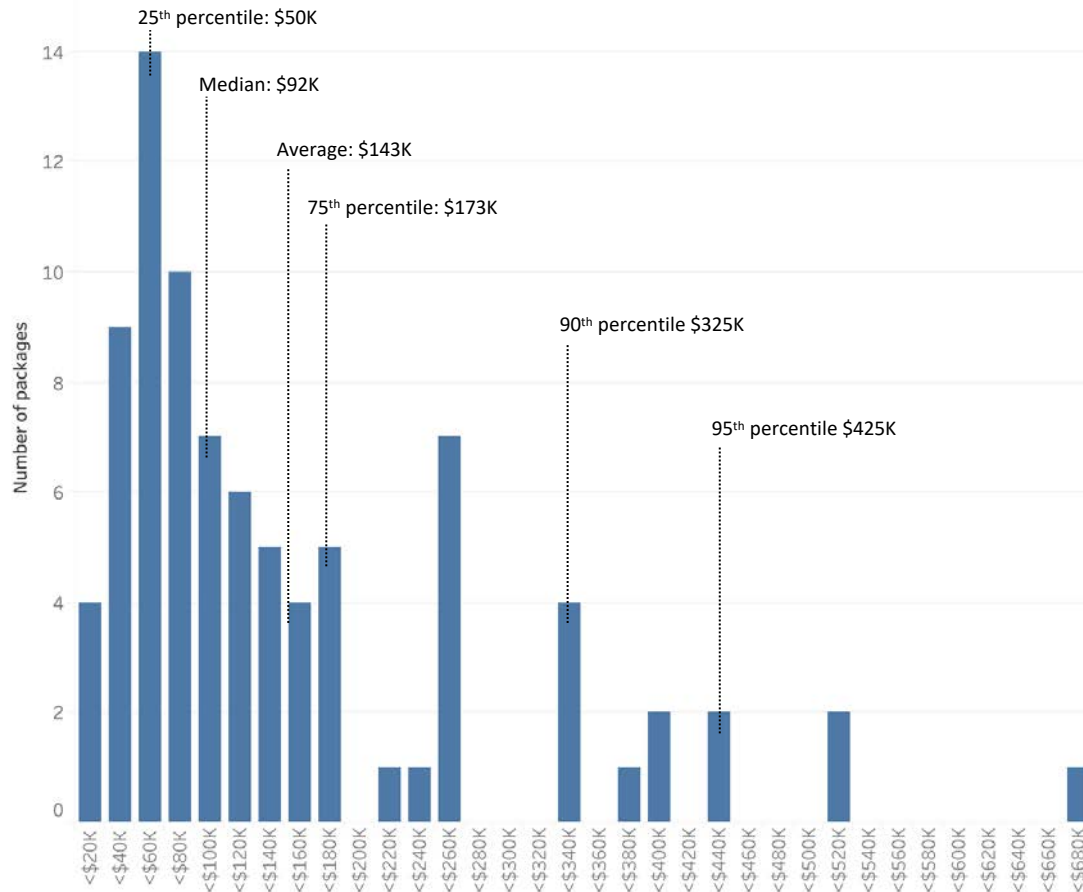
Challenge: Right Skewed Distribution – Long Tail of Pricing



Example Distribution of Pricing in Software



Figure 10. 2018-2019 Application Software price per asset distribution



\$20K to \$680K per asset

Long tail distribution is common in pricing

Similar distribution in both asking prices and closing prices

What's Happening with Prices?

Figure 8. Asking prices by market year
(average - top and bottom 5% removed)



2021 Asking Prices

Asking price	Per asset	Per US issued	Per family
Average	\$146,000	\$208,000	\$330,000
Median	\$108,000	\$163,000	\$250,000
Minimum	\$18,000	\$31,000	\$61,000
Maximum	\$500,000	\$700,000	\$1,000,000
Numerical data	199	192	195

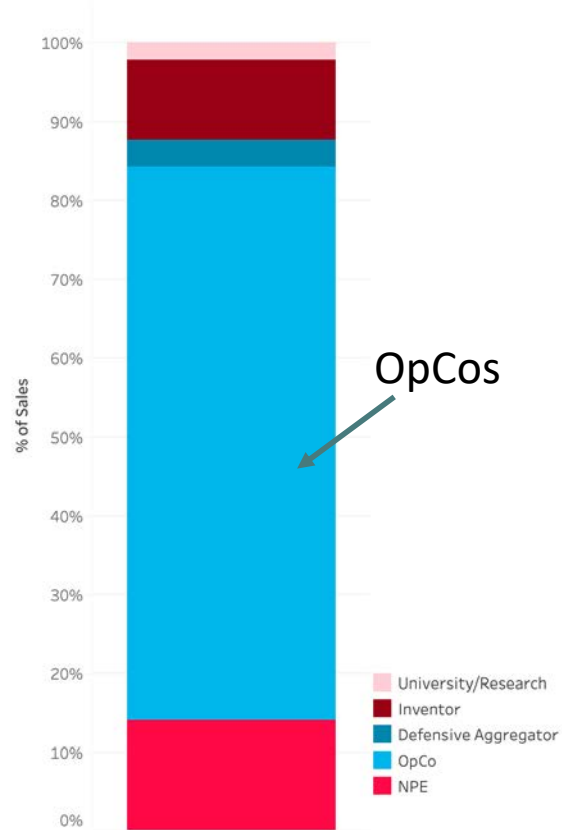
*** But prices of closed deals have been much more stable

Operating Companies Selling the Most NPEs Buying Most



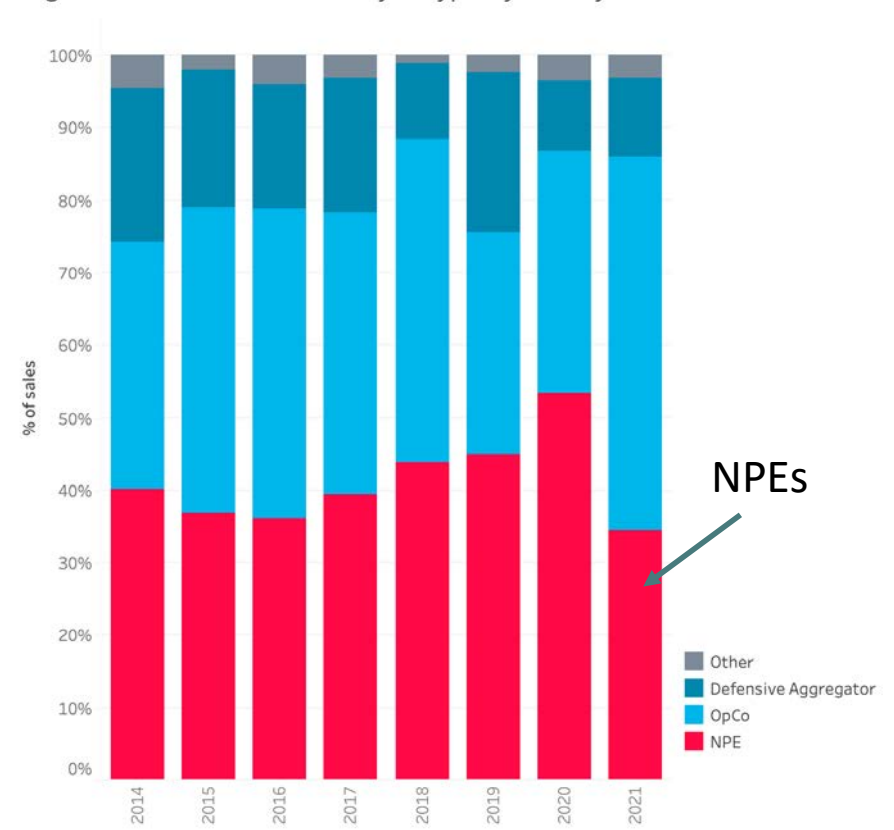
Sellers Are Corps

Figure 14. Distribution of seller type (sales year 2020-2021)



Buyers are NPEs

Figure 15: Distribution of buyer type by sales year



What Happened to IV?



Stopped buying in ~2012

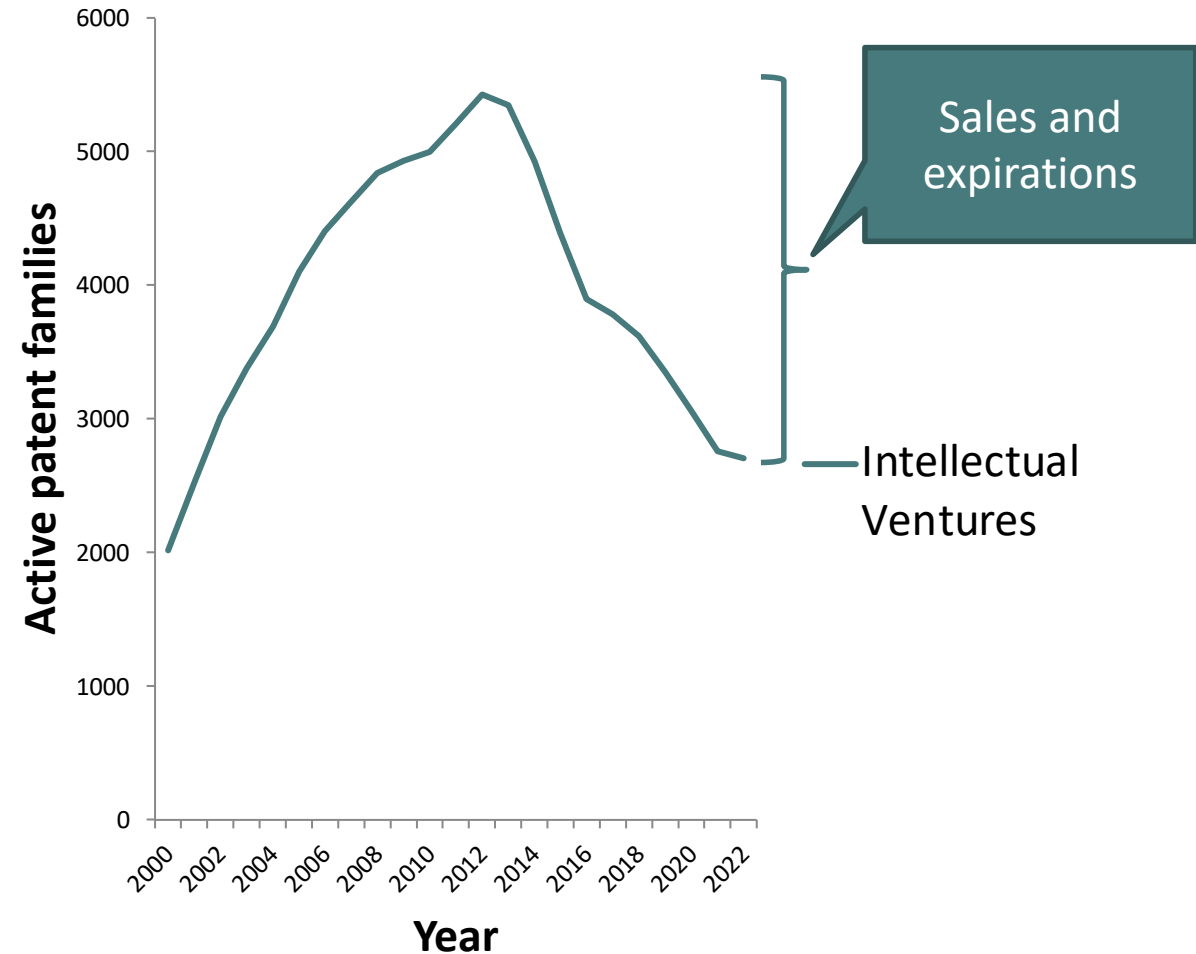
Fund management split up

ISF becomes Xinova – shutdown in 2021

Lots of assets sold

Litigations continue whether owned by IV or not

Intellectual Ventures

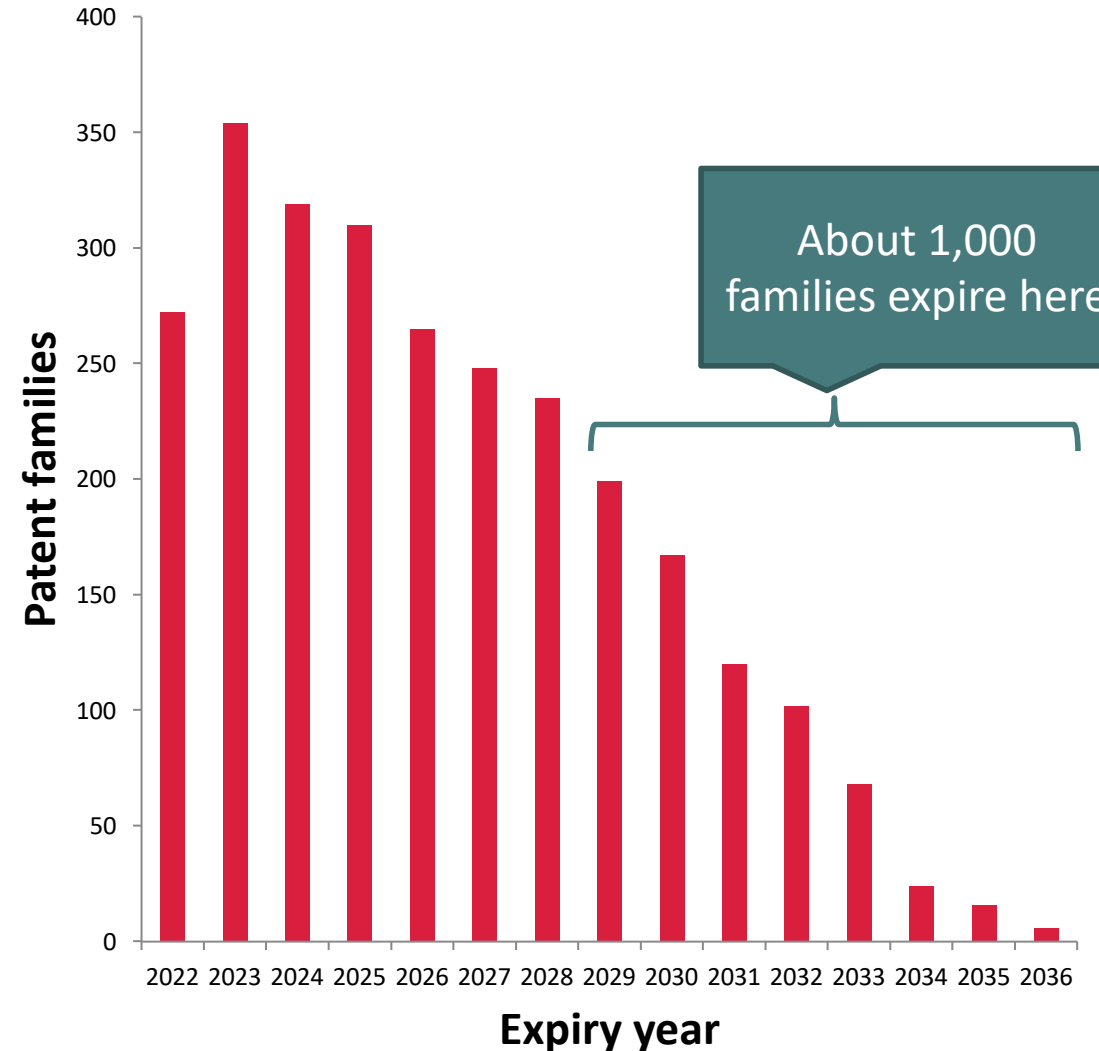


Different Owners but IV Litigations Continue



Litigations from 2014 Portfolio by Owner

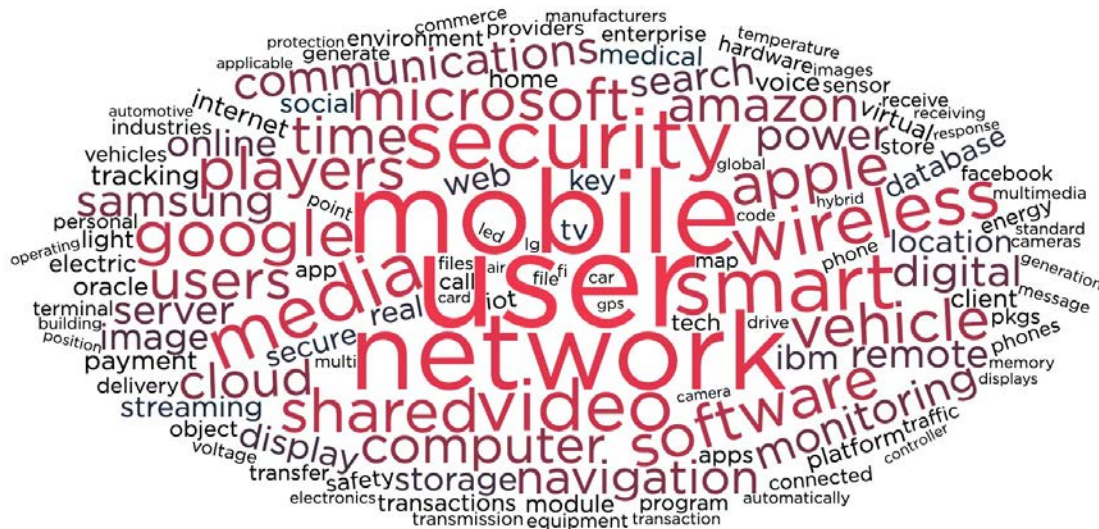
	Sum of TOTAL
Intellectual Ventures	130
Dominion Harbor Enterprises, LLC	80
IP Valuation Partners LLC	43
Hanger Solutions, LLC	32
IP Investments Group LLC	32
Cedar Lane Technologies Inc.	30
Digimarc Corp.	16
Quest Patent Research Corporation	13
Elite Gaming Tech LLC	11
Liberty Peak Ventures, LLC	10
Far North Patents, LLC	10
UNWIRED BROADBAND, INC.	10
Longhorn Hd LLC	10
Datacloud Technologies, LLC	10
BCS Software Llc D/B/A Bluebonnet Consulting Services & Software	8
American Patents LLC	8
PINEAPPLE34, LLC	8
Sendsig, LLC	8
Endpoint IP LLC	8
NORTHSTAR SYSTEMS LLC	7
Liberty Patents LLC	7
FLEET CONNECT SOLUTIONS LLC	7
IP Edge LLC	7
HD SILICON SOLUTIONS LLC	6



What's Hot in the Market?



2021 What Was Hot



Next 2 years?

Brokers survey

Communications: 31%

ICT: 11%

Medical: 8%

Other technologies

AI, automotive, cloud computer, energy, software, semiconductors

ROI Real Prices survey, buyers say

Software, security, cloud computing

Top Buyers and Sellers from 2019/2020



Repeat Buyers

Repeat Buyers (sold in 2019 or 2020)
Acacia Research Corporation / Acacia Research Group Llc
Allied Security Trust (AST)
Apex Net LLC
Apple Inc.
Arden Innovations Llc
Capacitant Innovations Llc
Cerinet Usa, Inc.
Commscope Technologies Llc
Dominion Harbor Group
Google Inc.
Helios Streaming, Llc
Ip Edge Llc
Majandro LLC
Mobile Drive Technology Co.,Ltd.
New Generation Engines Research And Development Llc
New Luck Global Limited
Open Invention Network, Llc
Optima Direct, Llc
Red Hat, Inc.
Rondevoo Technologies LLC
RPX
Samsung Electronics Co., Ltd.
Sovereign Peak Ventures, Llc
Videolabs, Inc.

Repeat Sellers

Repeat sellers (sold in 2019 or 2020)
2s Ventures
Ali Farzad Farzaneh
Allied Inventors
Allied Security Trust (AST)
Beamz Interactive, Inc.
Concert Technology
Foxsemicon Integrated Technology, Inc.
Fractus SA
Harris Corporation
Hewlett Packard Enterprise (HPE)
Himax Technologies, Inc.
Huawei Technologies Co. Ltd.
Intel Corporation
Korea Telecom
Kudrollis Software Inventions Pvt. Ltd.
Panasonic Corporation
PARC (A Xerox subsidiary)
Sisvel International S.A.
SK Planet co., Ltd.
SKK University
Transpacific
Xerox

Who Transacted What – 10 Years



Uber - Bought



Provenance – Sold



The Most Dangerous Assets in the World



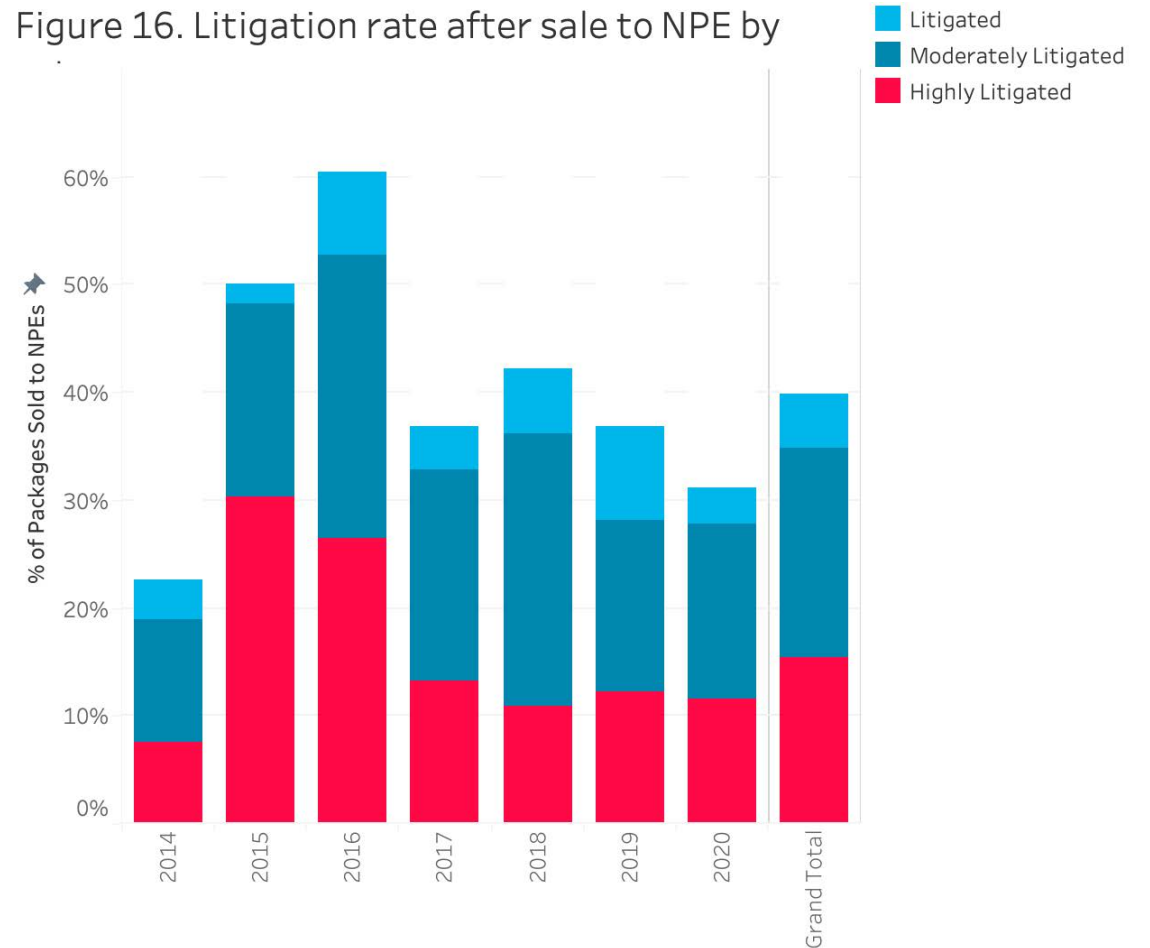
6% are litigated after the patents are listed for sale

But

~40%

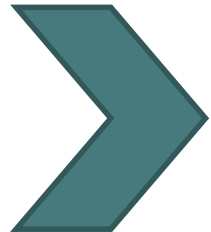
bought by NPEs
are litigated

Figure 16. Litigation rate after sale to NPE by



Why a market for buying/selling?

What's going on?



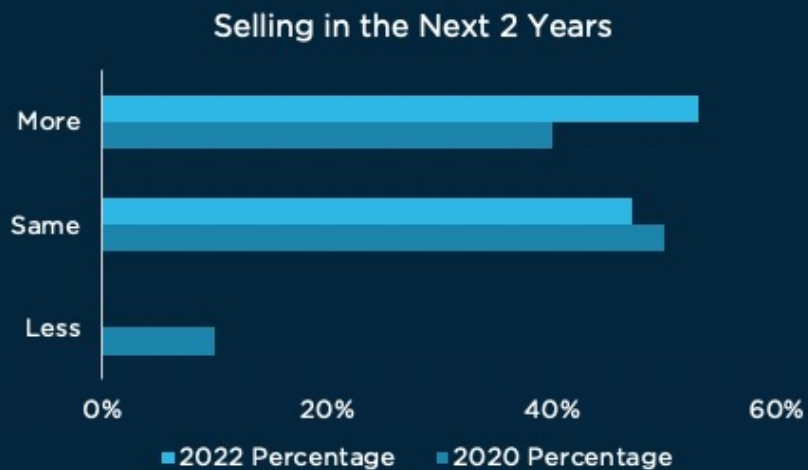
The future...

Market Outlook

- › Participants expect to sell slightly more and do the same amount of buying

Your Selling

Q: Sellers: Do you expect to sell more over the next two years?



Your Buying

Q: Buyers: Do you expect to buy more over the next two years?



Future of the Patent Buying & Selling



Continued adoption of patent transacting to solve strategic problems

Pricing remains the same with a bit of an uptick

Higher concentration of better quality packages

NPEs don't stop buying – they are better funded

AST, RPX, Unified, LOT, and OIN are not going away

Learning More – Further Resources



Richardson Oliver Insights

New data-business, increasing patent market transparency

Home page has updated market data

roipatents.com

Hosts reports and analysis on the market

“The 2021 Brokered Patent Market”
Richardson et. al. IAM Magazine (March 2022)

“An Empirical Look at the ‘Brokered’ Market for Patents.” Love et. al. SSRN (October 2017)

“Patent Purchases and Litigation Outcomes.” Lemley et. al. 2016 Patently-O Patent L.J. 15 (December 2016)

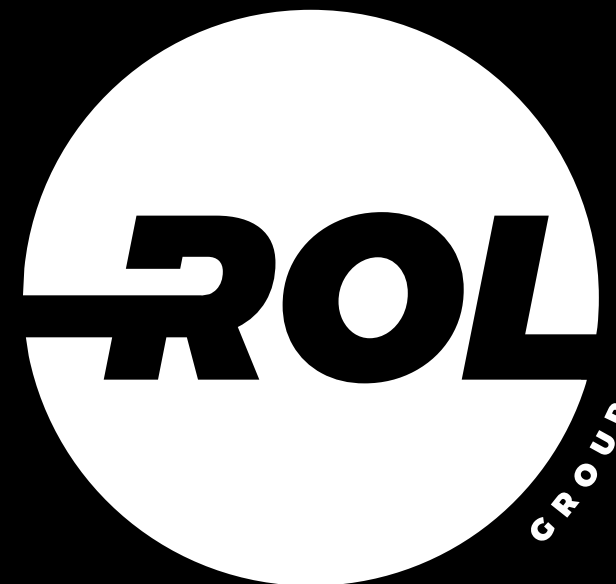
roipatents.com/publications/



BUSINESS SENSE • IP MATTERS

ROL Group has over 60 years of IP strategy and execution experience. We ask the business questions first. We blend in-house and large law firm experience to create clear steps for success.

We guide companies through unique IP challenges—like buying and selling patents, developing licensing programs, defending against patent assertions, and creating a value-driven IP portfolio. We give direction to businesses that share our passion for new ideas, creative problem solving and forward motion.



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SPIF: Patent Identification Solution for Everyone

Kent Richardson & Erik Oliver

RICHARDSON
OLIVER
INSIGHTS

Agenda



What's the problem

What's the solution

Google and RPX example

How to get involved

Address: Rural Route 1

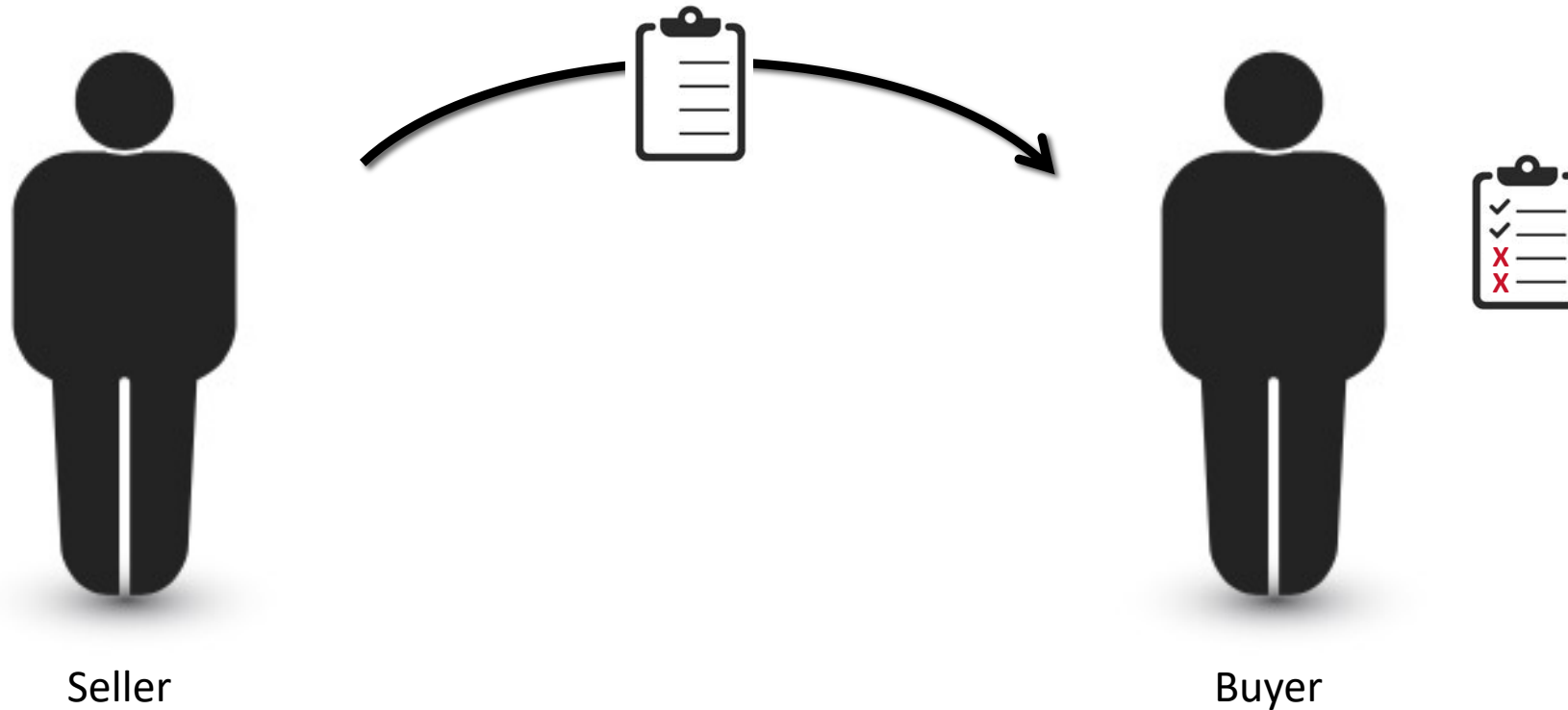
What You Thought You Bought



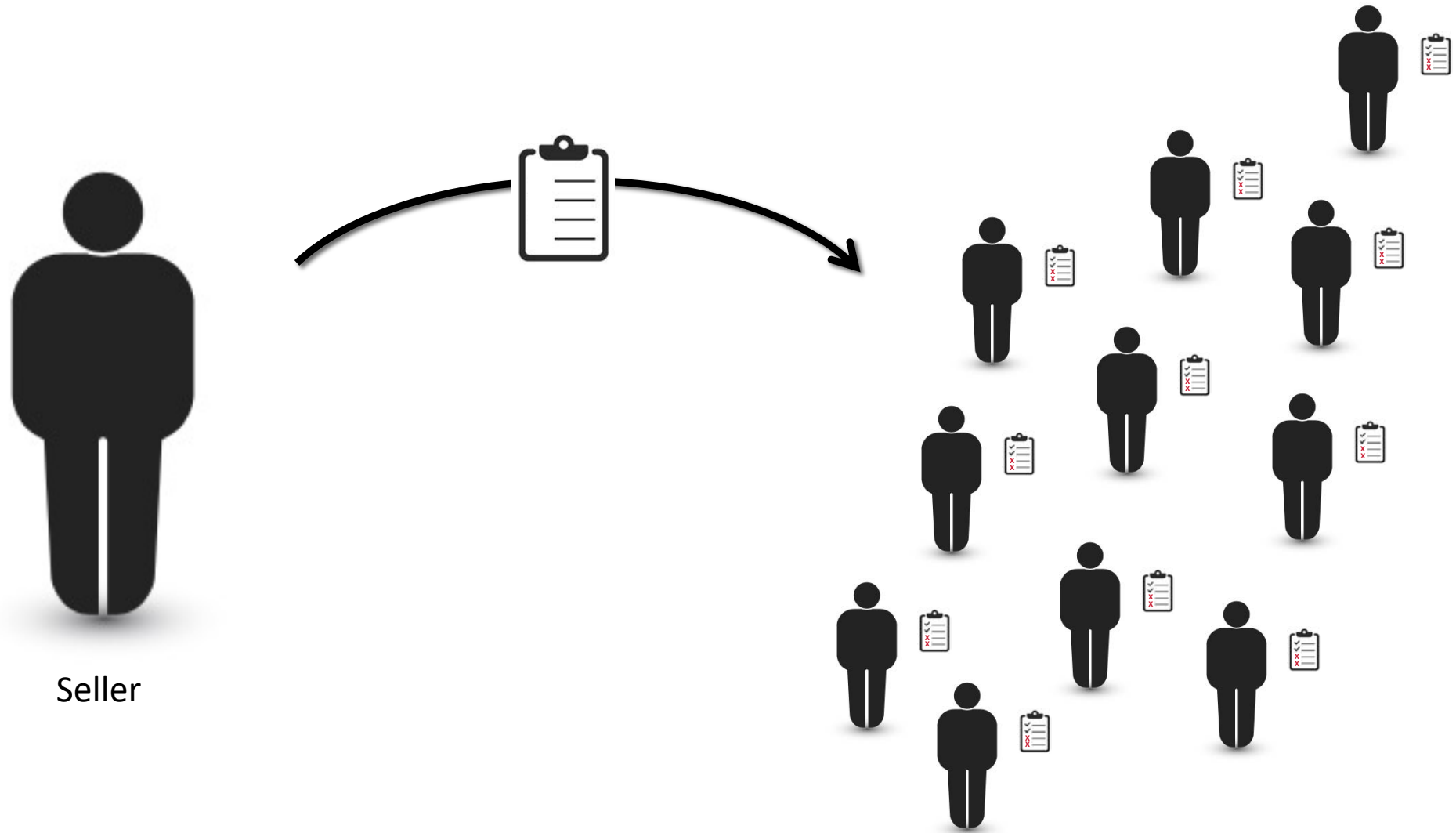
Also, Exactly the “Same Address”



Transferring a List of Patents – Buyer Can't Match Seller's List



Transferring a List of Patents – Buyer Can't Match Seller's List



Which Patent is That? Every Row is a Real Problem

<u>Sample Input</u>	<u>Likely Meaning (Guessing)</u>	<u>Type (app or pub)</u>	<u>Comments</u>
CNZL201480022610.X	CN201480022610	app	Extra check digit and prefix
ZL03827150.8	CN03827150	app	Missing country code
GB3123328	EP3123328A1	pub	Wrong country code (there's no UK patent with that number)
CH,2420637	EP2420637A2	pub	Wrong country code (there's no Swiss patent with that number)
ZA 2015/000715	ZA201500715	app	Extra zero
WO002/001258	WO02002/001258	app	Missing year digits
GB2405228,319405.7	GB2405228B8	pub	Extra stuff, app number?
US2014214418	US20140214418A1	pub	Missing zero
US7123456BB	US7123456B2	pub	Made up kind code "BB"
KR1341015B1	KR101341015B1	pub	Missing 10 prefix
20067013095,Korea	KR20067013095	app	Country name spelled out as suffix
US2017163019A1	WO02017163019A1	app	There is a US app with that number, but they meant WIPO
GB2568035	GB2568035B	pub	Ambiguous
GB2568035	EP2568035B1	pub	
US10229419	US10/229,419	app	Ambiguous

But the Problem is Bigger

Mergers and Acquisitions

Licensing

Transfer Prosecution Responsibility

Patent Research and Analytics

Standards Bodies

Entities Exchanging Patents IDs

The background of the slide is a close-up, high-angle shot of several gold coins. The coins are arranged in a slightly overlapping pattern, with some in sharp focus and others blurred in the foreground and background. The lighting is warm, highlighting the metallic texture and the intricate details of the coin designs, including profiles of figures and heraldic symbols.

\$150K per day

SPIF Solution



Defined format for

Application number

Publication number

Excel spreadsheet

Covers patents and applications
(including utility models)

Key Components to SPIF

Free, open standard

Human readable and checkable

Uses existing formats and compatible with existing solutions

Works for as much of the universe of patents as we can

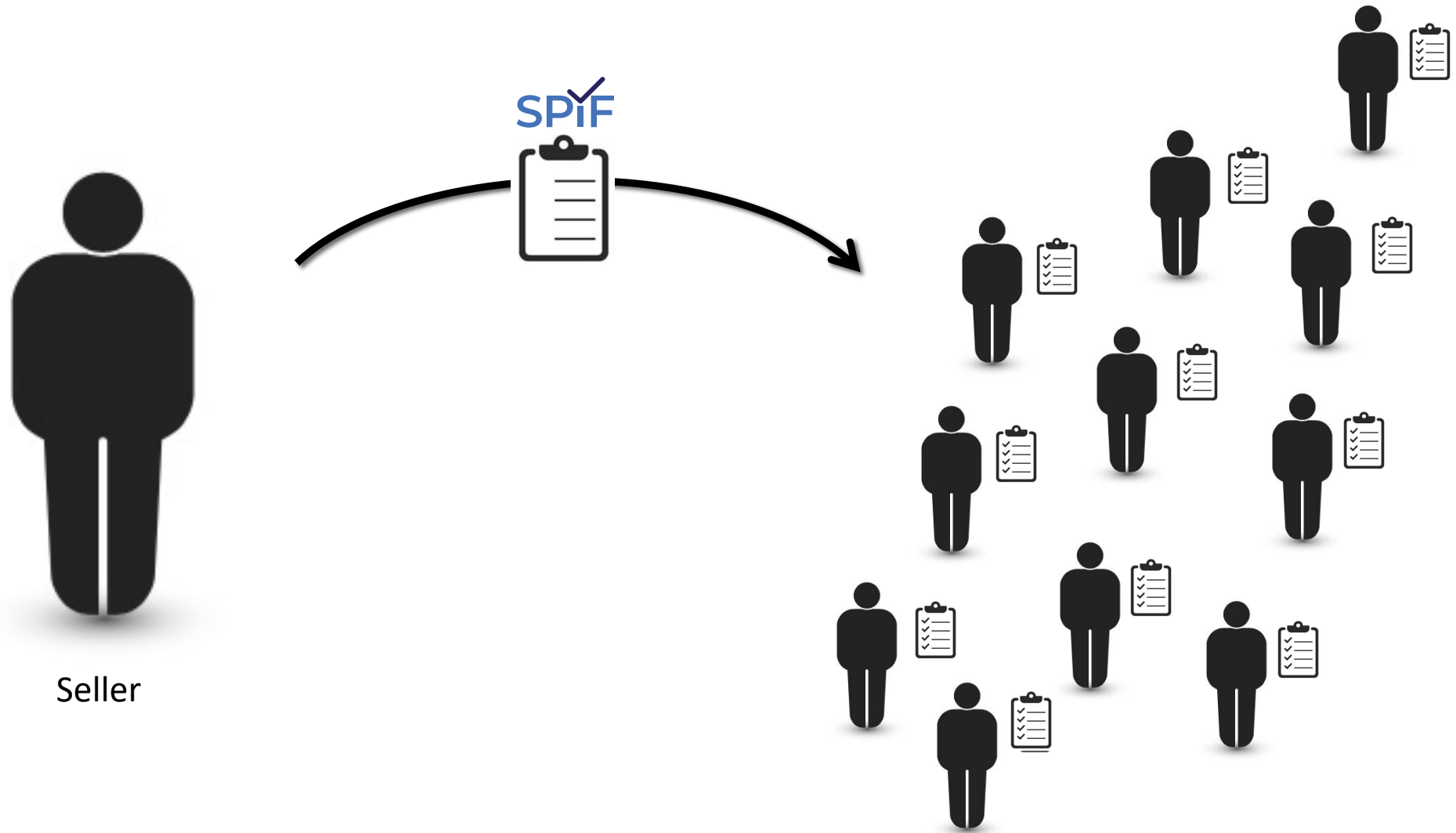
Uniquely identify the patent, not guarantee the patent exists

SPIF Format



Column Name	Description	Examples	Priority
Application Number - SPIF	<p>The patent-office assigned application/serial # including the country code and omitting spaces and check digits. There should be nothing else in the field (e.g., no leading/trailing whitespace)</p> <p>Check digits should be eliminated</p>	<p>US13624395 EP11759439 KR1020127027195 CN201180015433 JP2010549365 WO2011JP056984</p>	<p>Required where there is no Publication Number</p> <p>Recommended otherwise but can be blank</p>
Publication Number - SPIF	<p>The patent office assigned patent number (when available), or publication number (when available). including the country code and the kind code. There should be no spaces, punctuation, or other characters. There should be nothing else in the field (e.g. no leading/trailing whitespace)</p> <p>Check digits should be eliminated.</p>	<p>US9123456B2 EP2551856B1 KR101487211B1 CN102822907B JP4879373B2</p> <p>US20130014973A1 EP2551856A1 WO2011118054A1</p> <p>(Blank is ok if no publication number is available)</p>	<p>Required when issued or published, otherwise blank</p>

Buyers Can Match Seller's List



SPIF Example – RPX and Google



Who's In?



Unified Patents®



CIPHER

iam

RICHARDSON
OLIVER
INSIGHTS



Dropbox

RPX

RATIONAL PATENT®

Google



shopify

AON

open
invention
network®

PA
Proactive Patents

iam MARKET

FACEBOOK

view

m: MURGITROYD

Free Tools Exist at <https://www.spif.group/tools>

SPiF Patent data converter



Paste patent numbers into the text area, then press 'Lookup' to run the process to identify them, and 'Download SPIF data' to download a copy of your data in SPIF format.

By using this service you agree to the [terms and conditions](#), and [privacy policy](#). Specifically, we reserve the right to anonymously record any corrections you make to ambiguous number choices, in order to improve the service in the future.

As this is a free, public service it is limited to 100 lines of data, with one patent number per line. Cipher subscribers have access to a version with more capabilities, which can process up to 500 thousand rows at a time.

Examples of the formats recognised include:

US7123456B2
United States 10860565
US15/121,503
CN,ZL200610139336.1
FR 1320847
Germany 1320847

When you Lookup patent numbers a table will appear that indicates any input numbers where the results are ambiguous, or couldn't be found:

Ambiguous	Where the number provided matches multiple assets. We guess the most likely match from context, and offer the alternatives.
Unknown number	We don't have a record of this exact patent number, but it is a recognised format.
Unrecognised format	We don't have a match for this format of patent number. Try to find an alternate format.

```
US6523165B
US7178128B2
US8000000B
CNZL201480022610.X
GB3123328
US2014214418
```

Input contains 6 lines.

Lookup Download SPIF data Clear

A	B	C	D	E	F
Application Number - Sf	Publication Number - Sf	Title - SPIF	Filing Date - SPIF		
US90542001	US6523165B2	Alternating phase shift mask design conflict resolution	2001-07-13		
US27210402	US7178128B2	Alternating phase shift mask design conflict resolution	2002-10-15		
US87469007	US8000000B2	Visual prosthesis	2007-10-18		
CN201480022610	CN105121283A	Seat power systems and methods	2014-02-28		
EP15711725	EP3123328A1	DYNAMIC ENABLEMENT OF MULTITHREADING	2015-03-19		
US201414155446	US20140214418A1	SOUND PROCESSING DEVICE AND SOUND PROCESSING METHOD	2014-01-15		

How to Learn More and Join

The logo for SPiF (Software Patent Initiative Foundation) features the letters 'S', 'P', 'I', and 'F' in a bold, blue, sans-serif font. A dark blue checkmark is positioned above the 'I', with its top bar extending over the 'P' and its stem extending over the 'I'.

Visit spif.group/join

Contributor and general members are free

Membership agreements are available

Uses the Linux Foundation's Joint Development
Foundation Projects Membership Agreement

Online converter tool and open-source
checking tool code are available at
spif.group/tools

Rollouts using SPiF formatted asset lists
are happening now

Patent Risk Dashboard



Premise and Goals

Corporate patent strategy shifts increase/decrease risk of assertion

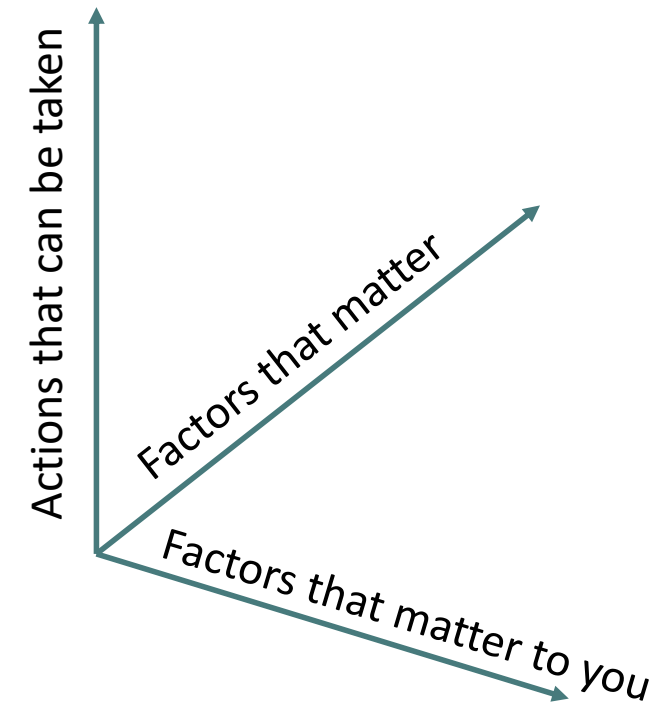
Patent strategy shifts can be detected from a variety of external qualitative and quantitative factors

Project

Identify and test a variety of data sources against historical patent strategy shifts

Test how well strategy shifts align with the data

Project patent strategy actions



Patent strategy is more like chess than MMA

Overview – Focus and Progress



Analysis Category	Intuition	Features Reviewed	Result
Financial performance	<i>Failing companies more likely to seek cash opportunities</i>	Stock performance compared to peers	Stronger correlations, generally Predictive of increased risk
Assertions and aggression	<i>Past aggression (and trend) indicative of threat level</i>	Public data Litigation and IPRs	Predictive of increased risk
Transactions	<i>Who's (a) building up their portfolio or (b) selling to NPEs</i>	Inbound and outbound	TBD. Specific actions are indicative. Long term trends are TBD
Changed filing strategies	<i>Is the company preparing for a fight?</i>	Cited art Internationalization # of independent claims Avg claim 1 word count	Indicative of management oversight. Predictive in some places. Long term trends are TBD
Portfolio strength	<i>(a) How large threat are they? And (b) are they</i>	Number of filings PVIX score (average & distribution)	Indicative of management oversight. Long term trends are TBD
Key people	<i>Who's hiring licensing or enforcement executives?</i>	Base department numbers are interesting	LinkedIn employee indicative. Long term trends look very interesting
Proximity	<i>Larger technology overlap equals higher risk</i>		Overlap with your specific tech area – TBD (need a better reference portfolio)

Ten Years Make a Difference



2010

2020

Private	Sources	ROI IAM Market
Only WSJ published deals	Transactions	Public data from multiple sources
Hidden	Pricing	8 Years of ROI annual reports Subscription service of closed deals
Intellectual Ventures plus select companies	Capabilities	Multiple ways to buy International buying

Quick Summary



Sales \$290 million, about the same as last year

Asking prices dropped 8% after last year's 56% increase

Software sales continue to dominate, has the highest asking price (\$200K) and high sales rates

Old deals still sell

NPEs are buying a larger share of the sold brokered deals

67% in the first half of 2020

Litigation threats from sold packages continue to rise

Example Factor – Financial Performance Predicts Patent Sales



Underperforming companies sell assets

2 years before a sale

71% of the sales occurred when the seller underperformed the overall market by more than 5 percentage points

Your possible actions

Cross-license

Buy from potential seller

Encourage LOT membership

Defensive aggregator

When Do Operating Companies Sell Their Patents?



By Erik Oliver & Kent Richardson & Fredrik Johansson
August 16, 2016

Print Article 2



What causes operating companies to sell their patents? Our intuition tells us that patent sales take place when the seller is in financial distress or the company is underperforming. We asked ourselves whether data aligned with our intuition.

When Do Operating Companies Sell Their Patents? - IPWatchdog.com, Oliver, Richardson, Johansson, 2016.
<https://www.ipwatchdog.com/2016/08/16/operating-companies-sell-their-patents/id=71890/>