### Valuation of IP Assets

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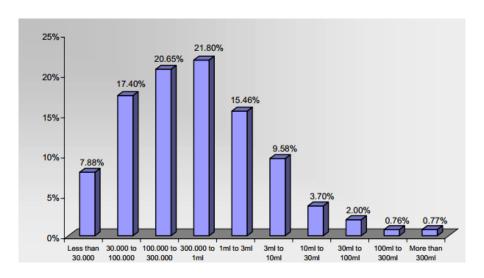
# Did you ever try to assess what your IP is worth? (Brassell and King, 2013)

# employees	0-9	10-49	50-249	250+	Total
Yes	3%	4%	4%	10%	3%
No	94%	91%	89%	78%	93%
Don't know	3%	5%	7%	12%	3%

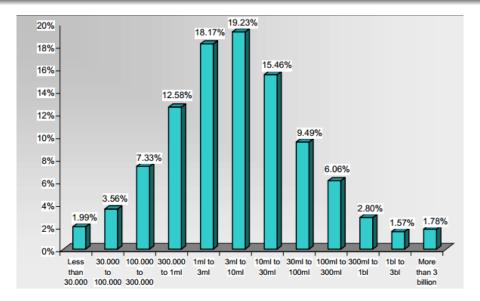
# Valuation of intangibles: brand value (WIPR, 2013)

	Interbrand			BrandZ	
Company	Brand Value	Brand value	Company	Brand Value	Brand value
	2013 (in	share of		2013 (in	share of
	billion USD)	market cap		billion USD)	market cap
Apple	98	58.0%	Apple	185.1	41%
Google	93	20.7%	Google	113.7	39%
Coca-Cola	79	39.3%	IBM	112.5	56%
IBM	79	26.9%	McDonald's	90.3	94%
Microsoft	60	22.9%	Coca-Cola	78.4	46%
GE	47	19.9%	AT&T	75.5	43%
McDonald's	42	43.9%	Microsoft	69.8	27%
Samsung	40	35.2%	Marlboro	69.4	NA
Intel	37	20.0%	Visa	56.1	49%
Toyota	35	17.8%	China Mobile	55.4	25%
Average	61	30.5%		91	46.7%

# Survey evidence: patent value (in EUR) (Gambardella et al., 2005)



# Survey evidence: value of groups of 'intertwined' patents (in EUR) (Gambardella et al., 2005)



## Technology transactions: ICAP patent auctions

#### Sealed Bidding

ICAP Patent Brokerage is recognized as the pioneer and leader in the auctioning of intellectual property assets. Since April 2006, ICAP Patent Brokerage, and its predecessor organization, Ocean Tomo Transactions, has held 20 auctions across the United States and Europe resulting in the successful transaction of hundreds of millions of dollars in IP, benefiting sellers such as individual inventors, small and mid-sized companies, large corporations, federal and government agencies, academic institutions, and investors. Designed to bring a sense of urgency and closure to IP transactions, the sealed bid platform creates a center for IP liquidity and promotes transparency for a market in which none had historically existed. Through our stringent qualification process, the ICAP Patent Brokerage sealed bid platform has become the premier forum for the open and public exchange of IP.

#### March 27, 2014 Sealed Bid

ICAP Patent Brokerage is offering an exciting set of lots at its sealed bid auction on March 27, 2014 in Los Angeles, California.

## Technology transactions: ICAP patent auctions

Lot ID 📥	IP Description	Sector	Seller	Initial Bidding Guidance*	Status
Lot 001	Sensors	Sensors	RevFire Corporation	Mid 6 Figures	AVAILABLE AT AUCTION
Lot 002	Network Accessed Video Surveillance System	Video Transmission	SAM Systems, Inc.	High 5 Figures to Low 6 Figures	AVAILABLE AT AUCTION
Lot 003	Structural Monitoring	Industrial Tools & Systems	Duhane Lam and Mark Ellens	Low 6 Figures	AVAILABLE AT AUCTION
Lot 004	Cloud Wallet System for Mobile, Web, & POS Financial Transactions	Web/Cloud Services for Mobile, Web, and POS Electronic Financial Transactions	Nexus Payments, LLC	Low 7 Figures	AVAILABLE AT AUCTION
Lot 005	Testing Packet-Switched Cellular Radio Networks	Mobile Networks	Validitas Limited	High 5 Figures	AVAILABLE AT AUCTION
Lot 006	Payment Cards	Electronic Transactions	Patricia Phelan	Low 6 Figures	AVAILABLE AT AUCTION
Lot 007	Lottery-Style Gaming on Social Networks	Online Gaming	William M. Wolf	Low 6 Figures	AVAILABLE AT AUCTION
Lot 008	Wireless Power Transfer System	Electrical and Electronic Devices	Extremely Ingenious Engineering	High 6 Figures	AVAILABLE AT AUCTION
Lot 009	Universal Task Management System	Crowdsourcing Tasks	Qgenisys, Inc.	Low 6 Figures	AVAILABLE AT AUCTION
Lot 010	Rotary Paddle Sensors	Robotics	Richard A. Bishel and G. Gregory Wilson	Low to Mid 6 Figures	AVAILABLE AT AUCTION
Lot 011	Boundary Sensors	Robotics	Richard A. Bishel	Low to Mid 6 Figures	AVAILABLE AT AUCTION

### Technology transactions: ICAP patent auctions

#### Cloud Wallet System for Mobile, Web, & POS Financial Transactions

Available for Purchase

ID	Lot 004
Seller	Nexus Payments, LLC
Sector	Web/Cloud Services for Mobile, Web, and POS Electronic Financial Transactions
Assets	1 - US Patent; 13 - US Applications*
US Patents	8,639,629
Applications	US 11/305,446; US 11/394,417; US 11/502,472; US 11/517,873; US 11/523,222; US 11/636,231; US 11/804,167; US 11/823,020; US 11/899,384; US 11/904,283; US 12/790,829; US 13/089,313 (Notice of Allowance has been received); US 14/161,638



Lot Summary Due Diligence

Value Proposition: With priority dates from early 2005, the disclosed portfoli includes one US issued utility patent, one granted US patent application, three preliminarity allowed US patent applications, and eleven US utility applications that comprehensively protect methods and systems for the Cloud Waller Priverio consumers can store and access all of their payment and rewards accounts through a central server—le., "in the cloud"—conveniently accessible via just one PRJ (in token needed) or via any single token (e.g., a standard magnetic swise card, contactess to 9th, mobile phone, or PC). Unlike previous systems, the Cloud Waller PN or token is "thin-client," storing no sensitive financial account data or "ke" payment information, as opposed to expensive and fraud-prior "fat-client Tokens which store financial accounts, improved provided in the provided provide

#### Introduction

- How to value Intellectual Property (IP)
- Valuing IP difficult
- Intangible asset: non-physical property
- IP subset of intangibles (but overlap e.g. brand value and trademarks)
- · Remember: registered IP is negative right
- · Means only valuable if somebody else wants to use it
- Distinct from value to owner from using IP

#### Introduction

- Identify asset subject to valuation
- Formal vs. informal IP
- Record of IP of some form needed
- Valuation not straightforward lots of interaction between formal and informal IP (think of single patent – often only valuable as part of patent portfolio)
- Value:
  - Generate measurable economic benefit
  - Enhance value of other assets
- In general: value of asset is discounted stream of future economic benefits

#### Introduction

- What generates benefits:
  - Freedom-to-operate
  - Sale/licensing to third parties
  - Strategic value (cross-licensing, deterrence effect etc.)
- Motivations:
  - Internal use
  - Transaction
  - Financing/collateralization/salvage value
  - Enforcement

## Valuation

Classification	Valuation trigger
Transaction	Licensing of IP assets; franchising
	Sale or purchase of IP assets
	M&A divestures, spin-offs
	Joint venture or strategic alliance
	Donation/pledge of IP assets
Enforcement of IP rights	Calculation of damages when IP right is infringed
Internal use	Investment in R&D
	Internal management of IP assets
	Strategic financing and/or raising equity/capital
	Investor relations
Other purposes	Financial reporting
	Bankruptcy/liquidation
	Optimizing taxation
	Insurance of IP assets

### Valuation methods

- Valuation methods
  - Fair market value (hypothetical exchange price)
  - Fair value (how much is it worth using)

#### Valuation methods

#### Cost method:

- Cost of developing IP asset (direct and opportunity costs factoring in obsolescence)
- Reproduction vs replacement costs
- Nature of intangibles: not necessarily linear combination of (tangible) inputs

#### Reproduction/replacement method:

- Reproduction cost of IP asset
- Replacement cost of creating asset with same functionality

#### Valuation methods

#### Market method:

- Comparison with actual market price of similar asset (accounting for observable differences)
- Close to concept of market price (think of used cars)
- Not straightfoward: for example need 2 identical inventions or that adjusting for observables makes them similar – but all the action is in the unobservables
- Often relevant in court case settlements

#### Income method:

- Amount of discounted economic income generated (or expected to generate) by IP asset
- Benefits vs costs
- But inherently forward-looking lots of uncertainty

## Obsolescence

• How to set value of **depreciation**? What about **risk**?



## Summary

- Valuation of intangibles inherently difficult
- But useful for
  - Internal purposes
  - Market transactions
- Various "off the shelf" methods but all very imperfect