



Optimising the Value of IP

Dr Rowan Gilmore
Chief Executive Officer





Presentation

- **Why is the AIC thinking about IP?**
- **An innovation framework: IP in context**
- **Identifying and valuing IP**
- **Managing and exploiting IP**
- **What Boards need to do better**
- **The future of IP**





Why is the AIC thinking about IP?

- **The AIC delivers services using its networks and experience that:**
 - **facilitate collaboration**
 - TechFast, Technology clinics
 - **enhance innovation**
 - market research, IP management advice, Commercialisation Bootcamps
 - **accelerate the commercialisation of IP** that our clients have created
 - ICT commercialisation brokerage
- **The AIC uses its expertise to provide policy input to several governments**



Innovation: IP in context

- **Innovation is when a novel idea or knowledge is used to create something of value in the marketplace**
- **‘Technological’ innovation is often equated with R&D**
 - frequently breakthrough and/or product innovation
- **‘Non-technological’ innovation is often overlooked, and can also create value**
 - Process innovation
 - Organisational or business model innovation (e.g. Google)
- **Innovation is always “*idea driven*”, but can change as a company grows**
 - Start ups are typically product or service innovating, corporates tend to do more ‘business model innovation’. Both involve IP.



The importance of innovation to the firm

- **Australian data (IPRIA)**

- The 30 of the top 50 R&D spenders for whom 5-year data was available spent four times the national average on R&D per revenue. Their return on shareholders funds was 17.1% compared with 7.7% for Australia's top 1000 enterprises.

- **Global data (Boston Consulting Group Innovation Survey)**

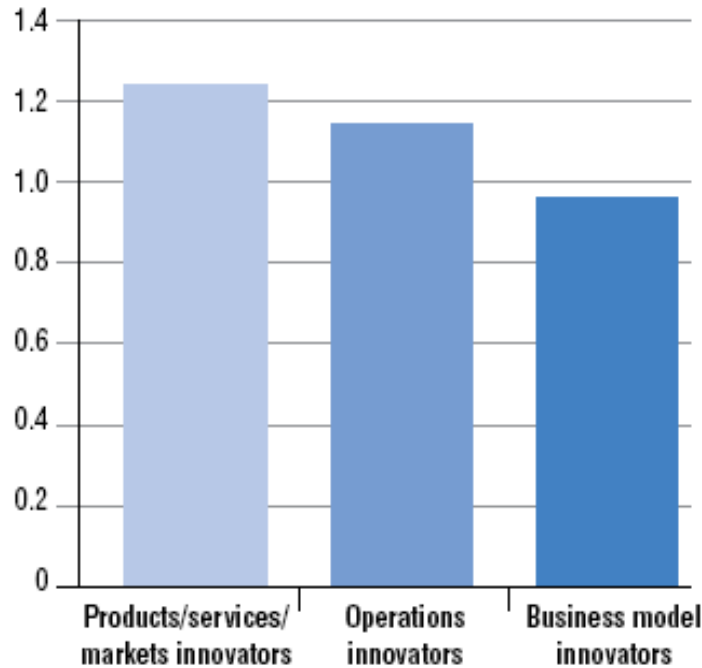
- The 25 most innovative companies had a median annualised return of 14.3% from 1996 through 2005, a full 300 basis points better than that of the S&P Global 1200 median
- Innovators increased median profit margins by 3.4% per year over ten years, compared with 0.4% for the median



Innovation matters!

Figure 9. Historical operating margin in excess of competitive peers.

(Percent)



Source: IBM Global CEO Survey, "Expanding the Innovation horizon" July 2006

© AIC 2008

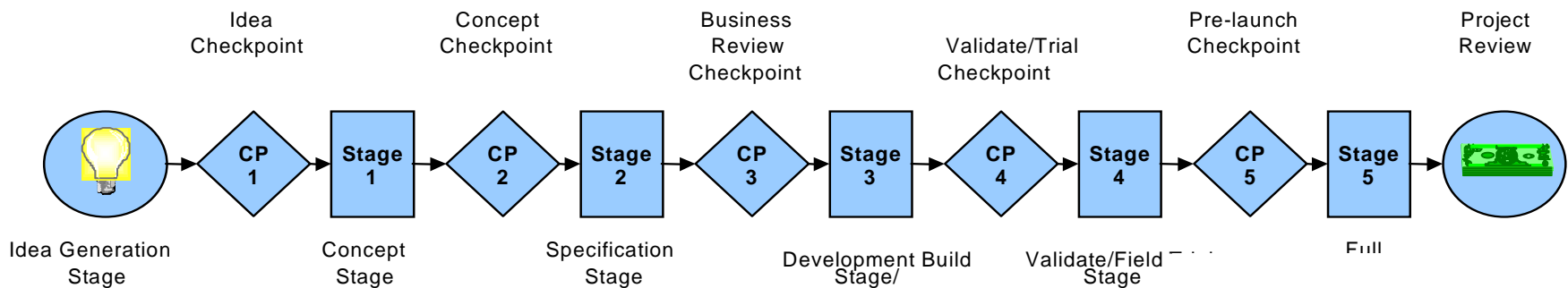




Four Types of Innovation

1 Product Innovation

- New products or services
- Enhancing existing products
- Technological innovation





Four Types of Innovation

② Process Innovation

- improving processes within the organisation-business process innovation
- e.g. operations, HRM, finance, better way of communicating, knowledge management system
- focus on improving organisational effectiveness and efficiency



Four Types of Innovation

3 Marketing Innovation

- related to the marketing functions of promotion, pricing and distribution
- product related (eg. packaging, advertising)
- creating a new market or marketing system e.g. Amazon.com
- many products were invented before their time



Four Types of Innovation

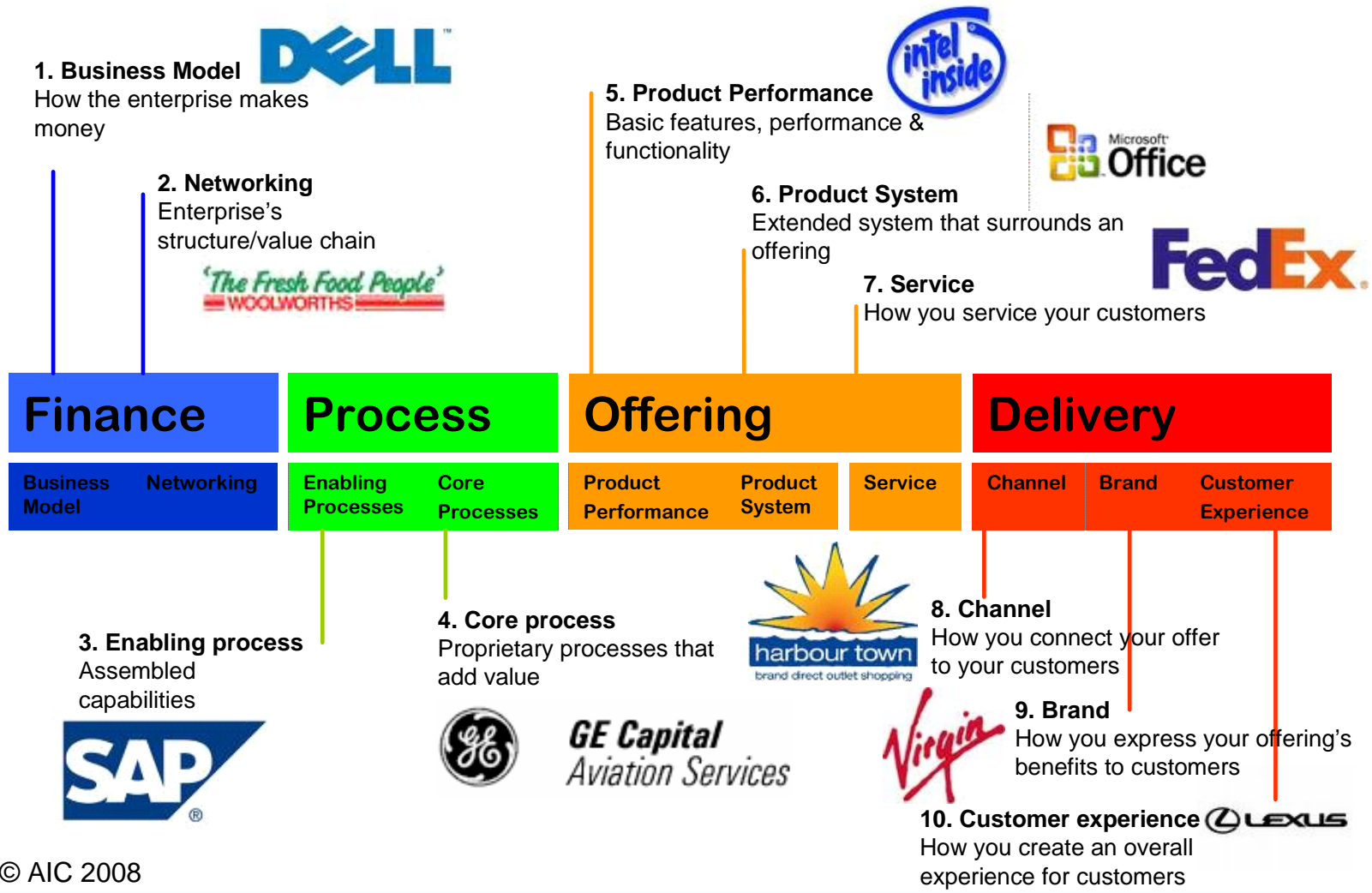
4 Management or Organisational Innovation

- the way the organisation is managed
- e.g. organisational structure, leadership, work environment, culture
- cross functional work teams - team-based decision making approach
- Business Model Innovation



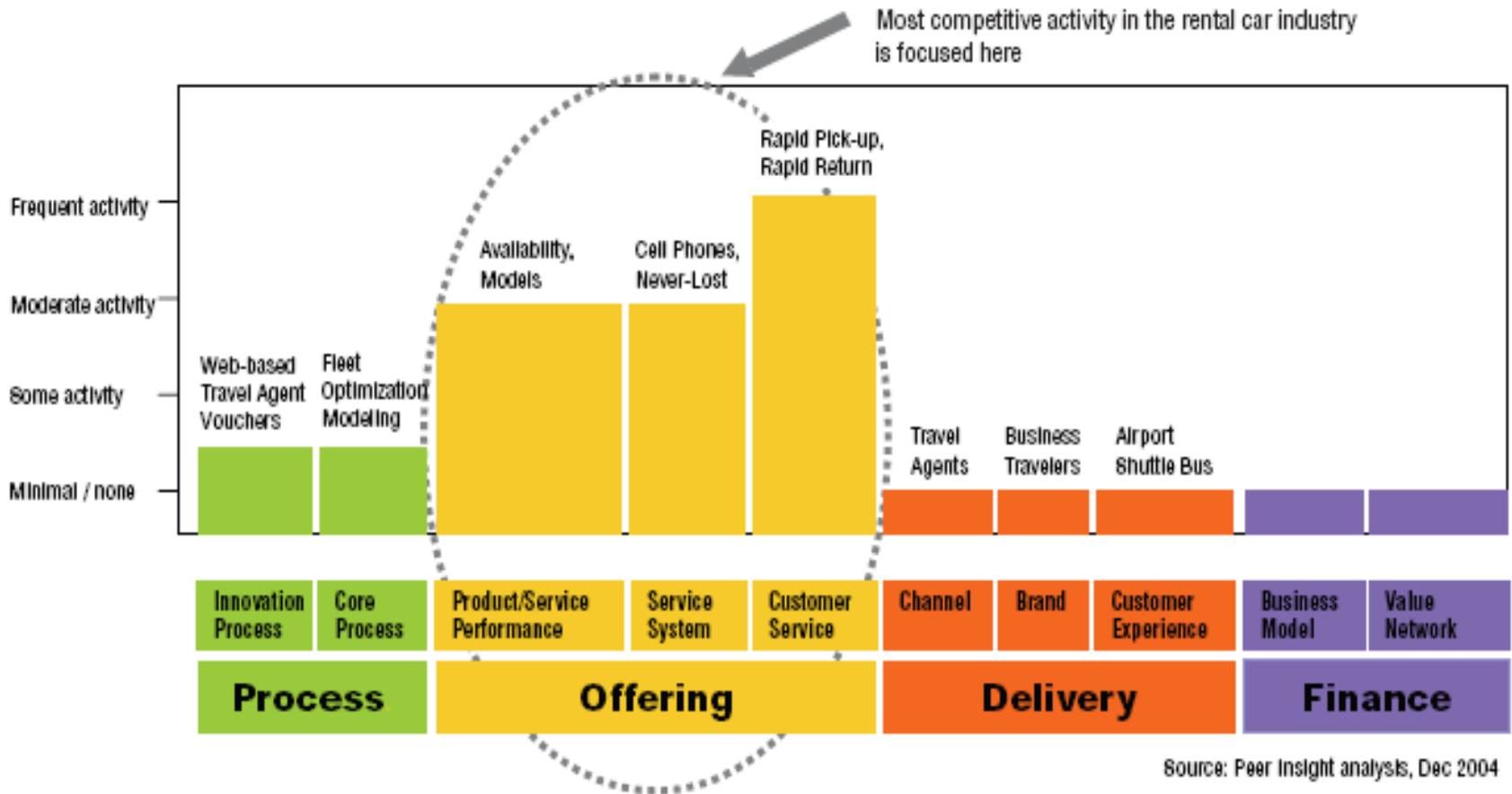


The Ten Types of Innovation beyond products





Competition in the car rental industry

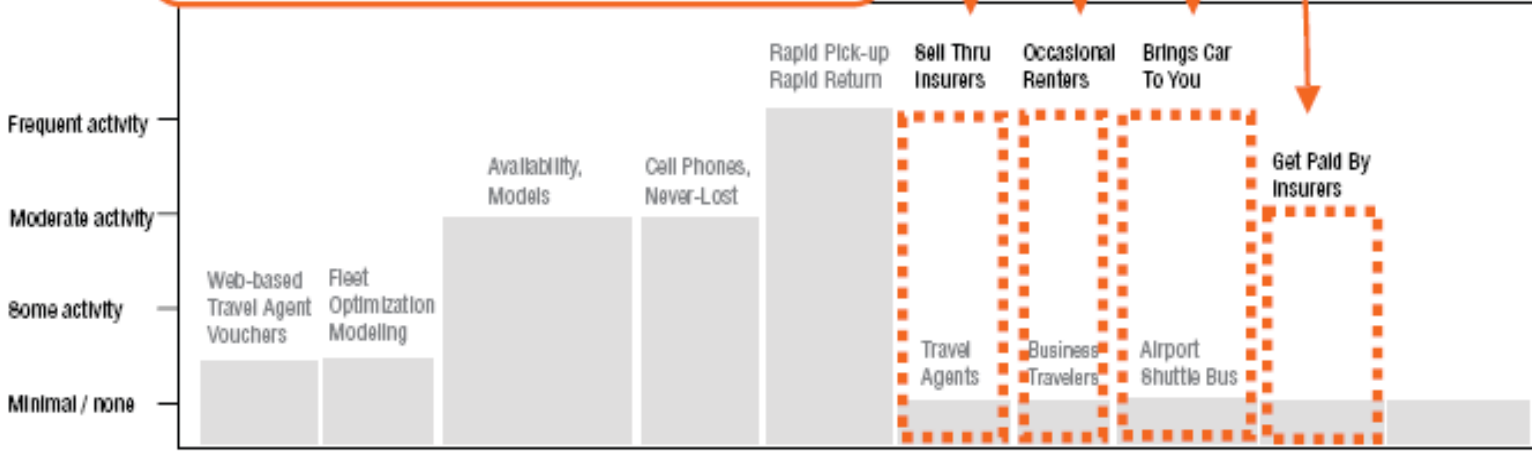




Innovation in the car rental industry

eEnterprise
rent-a-car

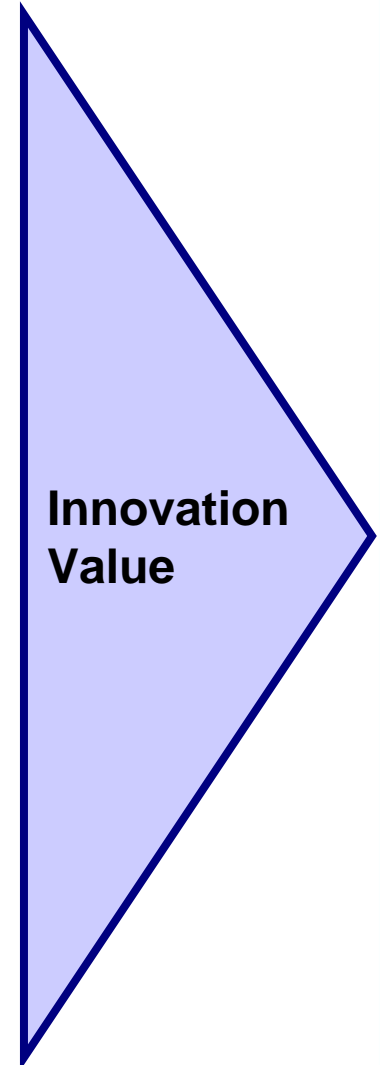
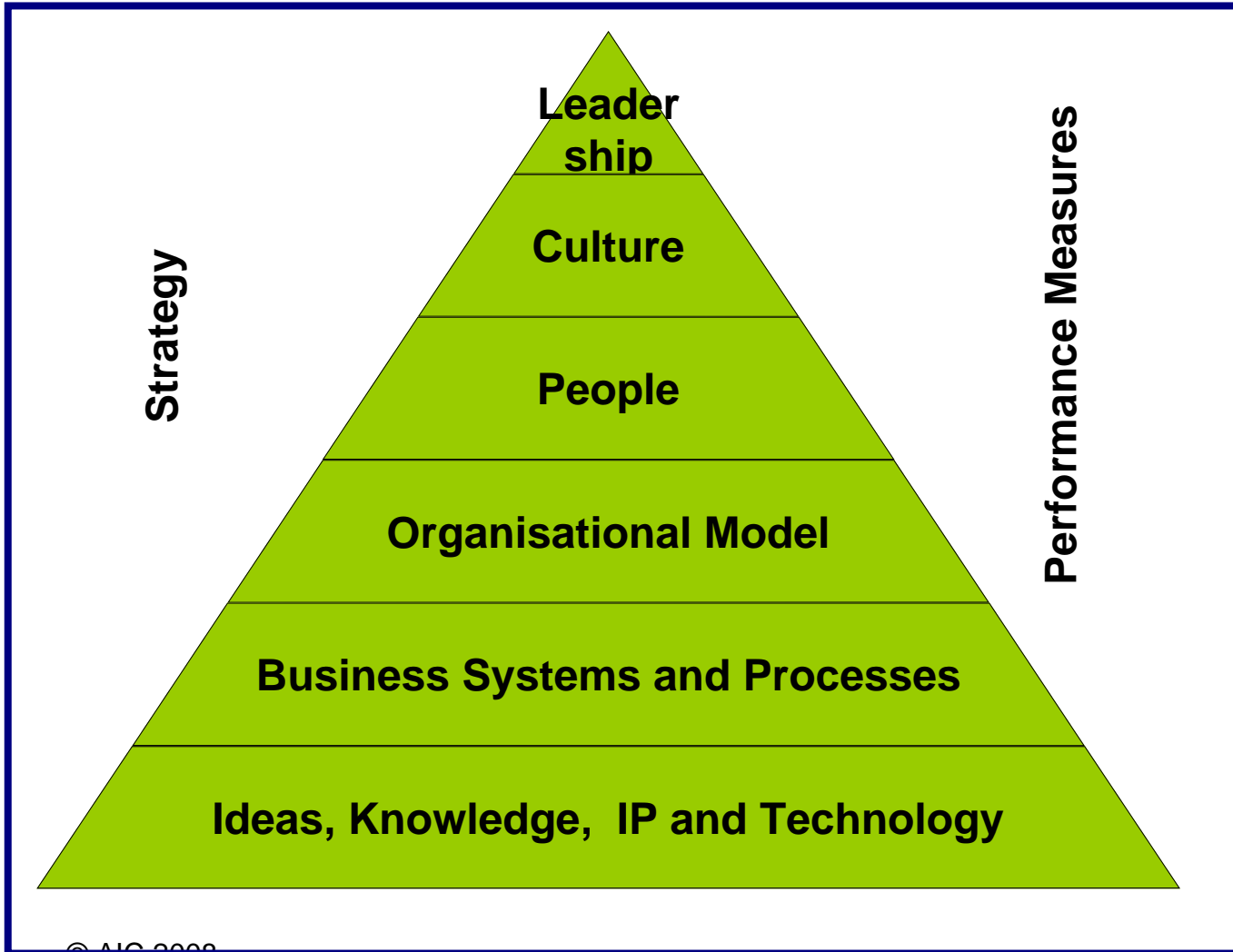
- Largest car rental company (\$6.9B vs. \$4.9B for Hertz, \$2.5B for Avis)
- Targets the occasional renter
- Uses the insurance company channel
- Brings the car to the renter; avoids cost structure of airport real estate



Source: Peer Insight analysts, Dec 2004



Innovation Framework





Why is IP important?

- **Good question.... Why bother?**
 - IP is tradeable and can be protected
- **IP is as important to commercial success as business, marketing and financial plans**
 - Prevent competition (real and bluff)
 - Attract investors
 - Licensing tool
 - Perceived value
- **May be a firm's most important asset**



Characteristics of IP

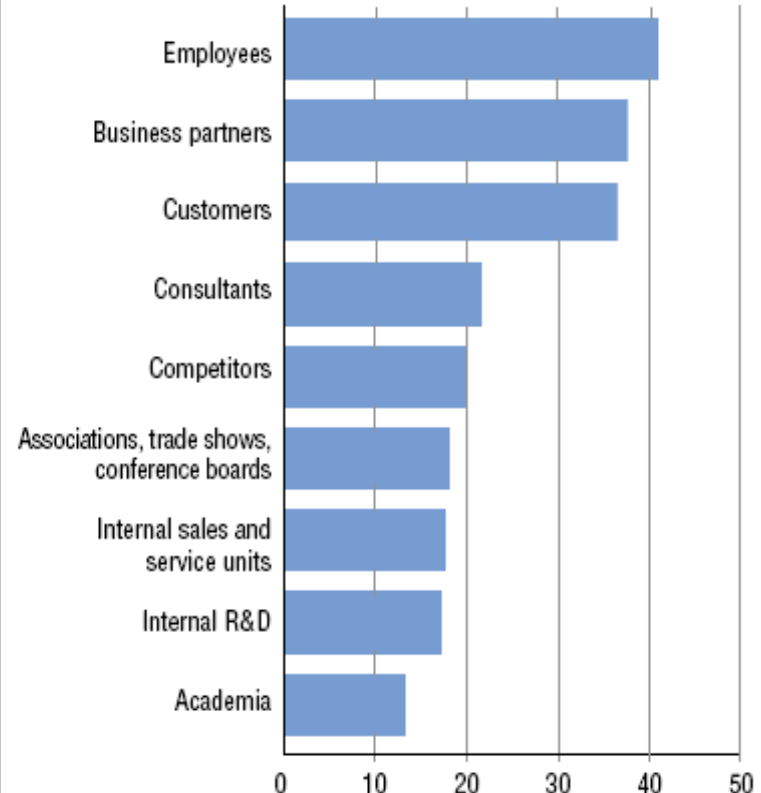
- **IP is an intangible asset**
 - Thus it should be managed
 - Requires a strategy and policy
- **IP can be owned**
- **IP has associated usage rights**
- **Therefore, IP has value**



Identifying IP

IP arises from ideas

Figure 10. Most significant sources of innovative ideas.
(Percent of respondents)



Note: Respondents could select up to three choices.

Source: IBM Global CEO Survey, "Expanding the Innovation horizon" July 2006

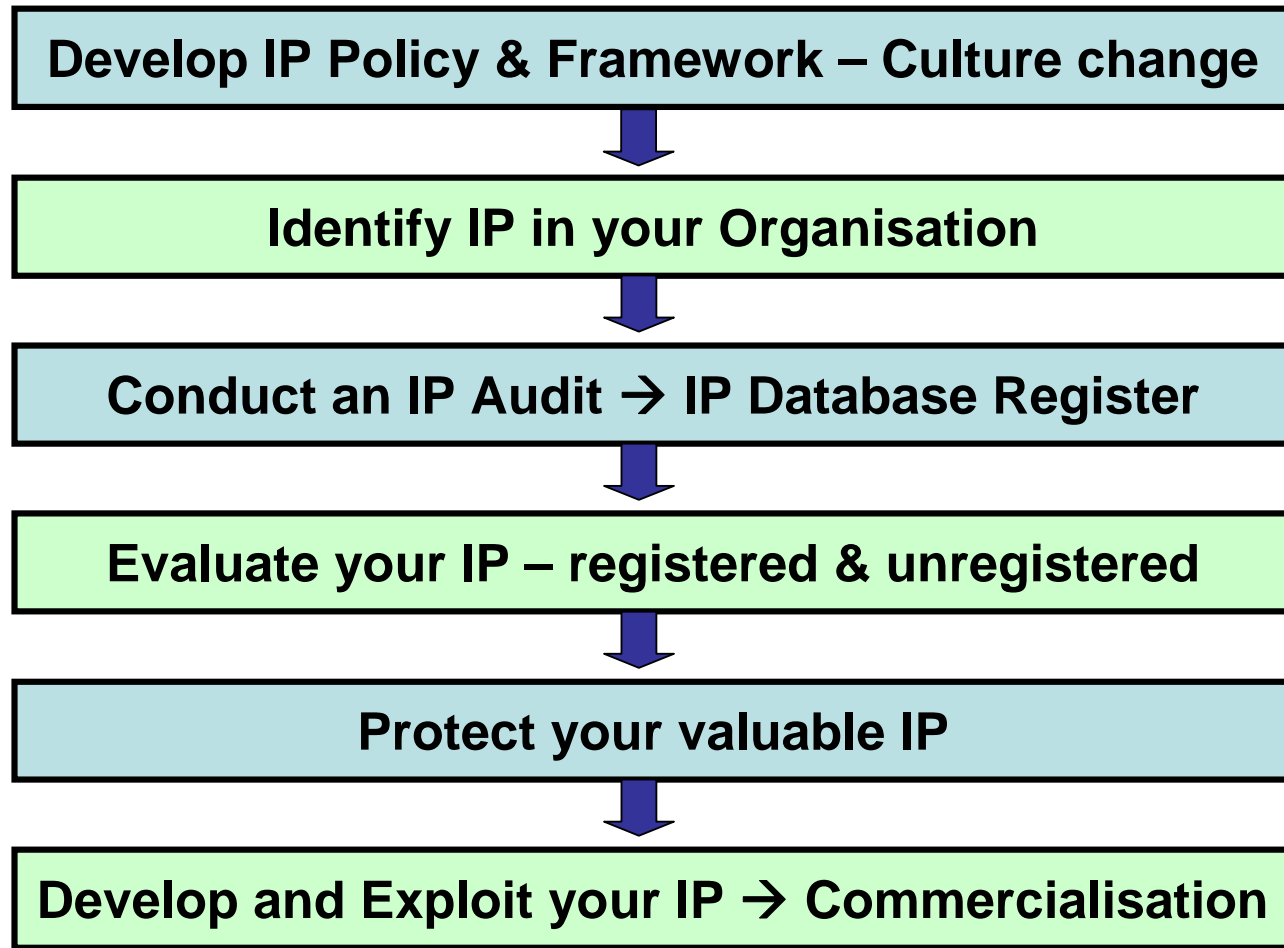
© AIC 2008



Output Idea	Intellectual Property	Example – it would protect
Trade and commercial secrets	Confidential information	Secret information about how well a mousetrap works
Inventions	Patents	A new mousetrap
Authored and artistic works	Copyright	A drawing of a mousetrap
Trade mark and trade reputation	Unregistered and registered trade marks	A Mousetrap™ logo or a Mousetrap® registered logo
Industrial designs	Registered designs	A stylish mousetrap
Circuit layouts	Eligible circuit layout rights	An integrated circuit designed to control a mousetrap
New plant varieties	Plant Breeders Rights	A hybrid venus flytrap that eats mice



Strategic IP Management





Improving the IP Management Process

- IP Management is rarely a management priority
- It needs to be formalised as part of daily duties
- It needs to be systemised and organisation-wide
- It needs to identify knowledge gaps and provide support to fill them



Identifying Intellectual Property

Require registration

- Designs
- Trade Marks
- Plant Breeders Rights
- Patents

Do not require registration

- Trade Secrets
- Copyright





IP is more than patents



source: "The Age"



IP Audit

- 1. Develop a plan for the audit – scope, area or inquiry, time schedule**
- 2. Outline the responsibilities of each member of the audit team.**
- 3. Define the preliminary documents for review and decide which members of the organisation, present and past, to interview.**
- 4. Assess the mechanisms that the organisation uses to identify and protect each new piece of IP that the organisation develops**
- 5. Identify all IP assets and develop an IP database/registry**
 - Nature/description of the asset
 - How it works and how it is used
 - It's stage of development
 - Ownership of the IP asset – identify ownership issues
 - Inventors or authors
 - When and how the asset was created or acquired
 - Contracts, proposals, and agreements





IP Audit

- 6. Analyse the IP and understand how it fits with the organisation's core objectives and competencies.**
- 7. Determine what action to take as to each piece of IP (what is the best commercialisation option) and decide when and how to protect the IP (if appropriate) if this has not already been done.**
- 8. Conduct Literature and IP search for protectable IP.**
- 9. Review the organisations compliance with the terms of any IP registrations or to any licence of IP rights.**
- 10. Document the audit results and present to the organisation**



What IP audits must do to avoid failure

- **AIC uses an IP audit checklist**
- **Details and procedure available online through AIC's Gateway Enterprise system:**
 - IP procedures (policies, disclosure, protection...)
 - IP identification (notebooks, contracts, software...)
 - Review of registered IP (including renewal, usage...)
 - Review of unregistered IP (as above)
 - Contract terms (Deed of IP assignment, ...)
 - Licence terms
 - Employment contracts (students, contractors, ...)
 - Document management (nondisclosures, inventorship...)
- **Keep updating the audit data!**





IP management is critical in JVs

- **For example, (2006) incorporated CRCs had to consider**
 - Should new IP be owned at the Centre or Project level?
 - What rights to new IP should participants have?
 - What rights/obligations to new and background IP do Universities insist on (eg publications/students)?
 - What should the scope of warranties and indemnities be?
- **Tax status of the incorporated company impacts on IP ownership**
 - tax exempt:**
 - Company owns **all** Centre IP (Project IP & Other Centre IP)
 - no tax exemption:**
 - Company owns **legal** interest in Project IP
 - Participants & Company own **beneficial** interest in Project IP
 - Company holds Participants' interest in Project IP on trust.
- **Commercialisation is controlled by the Company**
- **Commercialisation income received by Company and held on trust (Tax exempt company)**
- **Background IP – not available for commercialisation without a separate licence**



Valuation of IP



© 1995 United Feature Syndicate, Inc. All rights reserved.



Valuation of IP

- **When do you need to value IP?**
- **What are your IP assets worth?**
- **To whom are they valuable?**
- **Is the value financial or in another form?**
- **Are IP assets measurable individually or as a collective?**



- **The Value of IP - ultimately defined as the amount someone is prepared to pay**



Valuation of IP

Three broad approaches to Valuation of IP

- **Cost-based**
 - Sunk costs
- **Market-based**
 - Comparable market data
- **Future revenue/income-based**
 - Net Present Value/Monte Carlo
- **Other approaches**
 - 25% Rule, Real Options, Auction
- **See AIC White Paper** “Realistic Valuations of Intellectual Property”
in the research library at www.usicom.com



IP Selection Criteria

Value Criteria

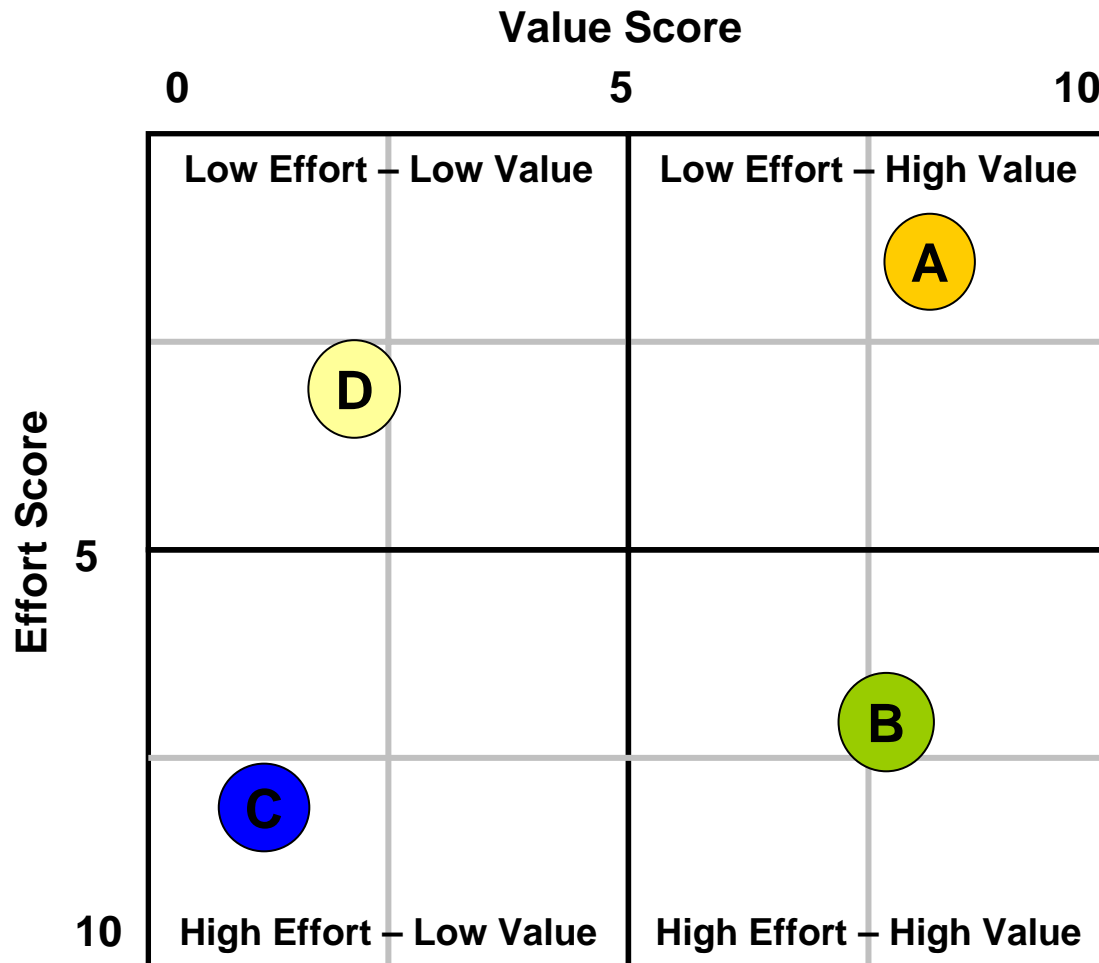
- IP Valuation
- Strategic Fit
- Economic return
- Freedom to Operate
- Competitive advantage
- Risk factors

Effort Criteria

- Capital required
- People resources
- Timing (short/long)
- Ease of commercialisation
- Target market exists



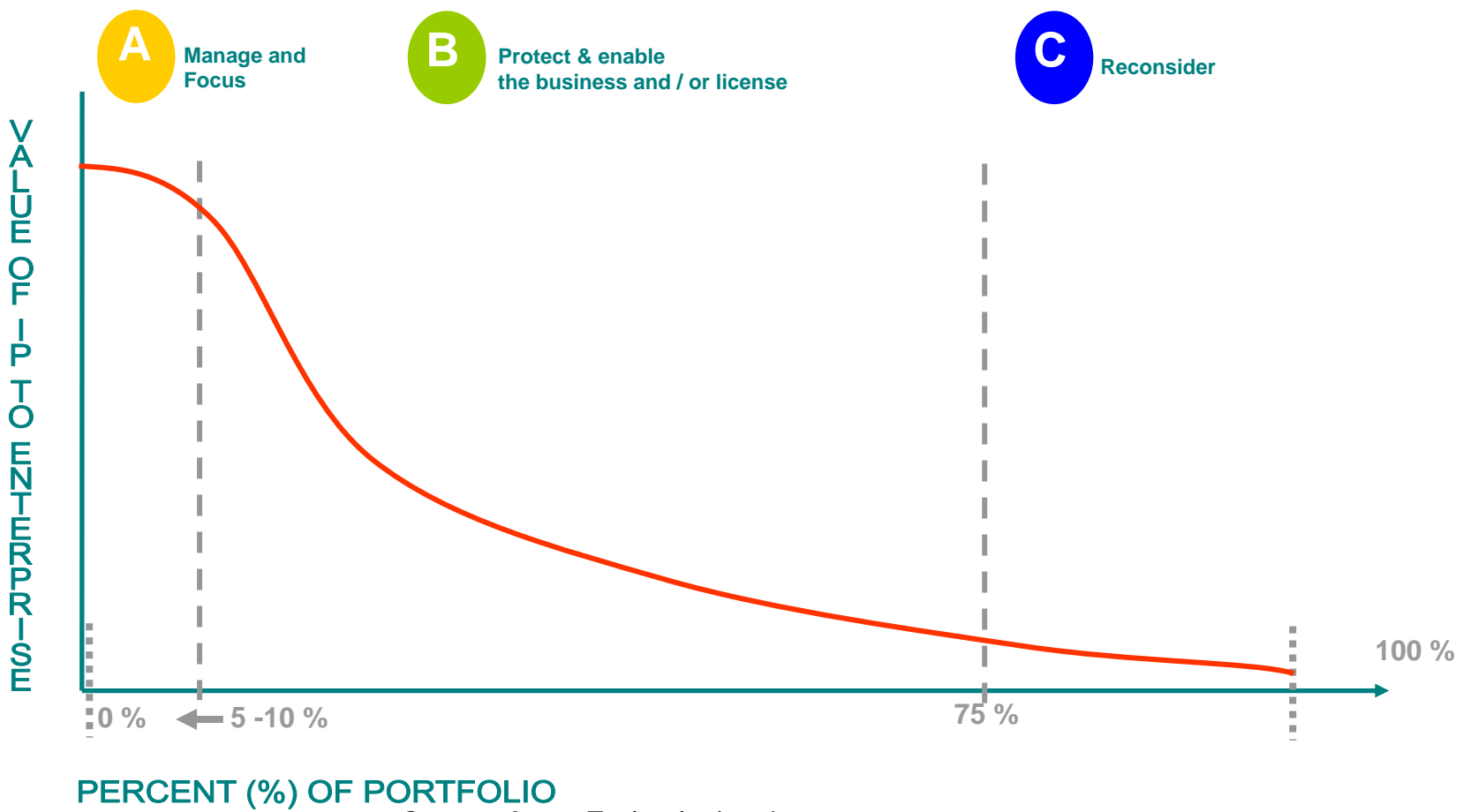
IP Screening & Evaluation



<p>Type A</p> <ul style="list-style-type: none"> ➤ Assign Top Priority
<p>Type B</p> <ul style="list-style-type: none"> ➤ Identify how to Reduce effort
<p>Type C</p> <ul style="list-style-type: none"> ➤ Divest IP
<p>Type D</p> <ul style="list-style-type: none"> ➤ Identify how to increase value



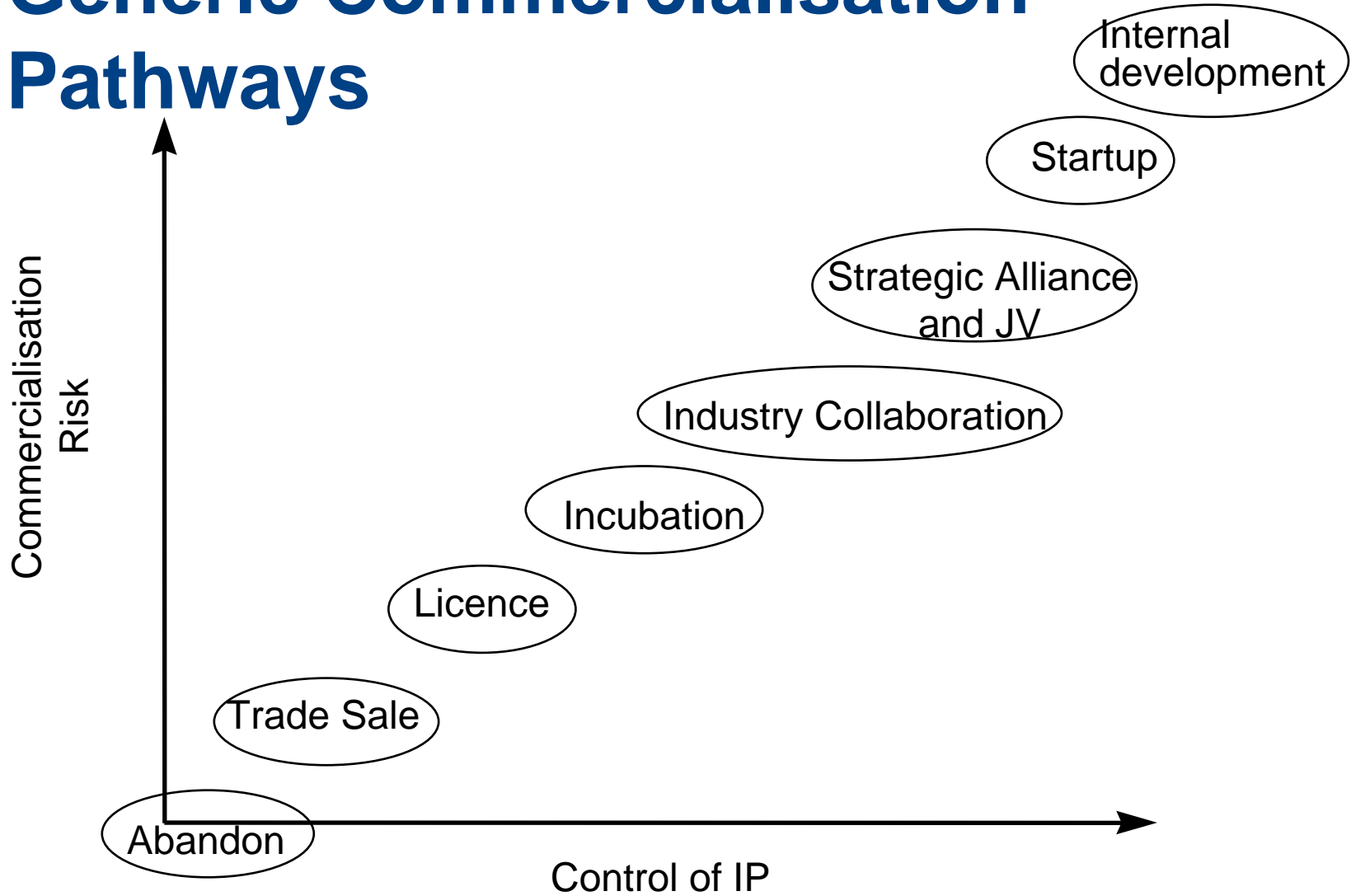
Value Distribution of an IP Portfolio



Source: Acorn Technologies, Inc.



Generic Commercialisation Pathways





Commercialising Your IP Rights

	<i>Risk</i>	<i>Profit</i>	<i>Control</i>	<i>Management</i>
<i>Licence</i>	small	low - medium	low-med	low
<i>Assign</i>	small	very low -medium	none	none
<i>JV</i>	low- medium	medium - high	medium	high
<i>Outsource</i>	low - medium	medium - very high	complete	high
<i>Start Up</i>	high	none - very high	according to equity	depends on equity



Trade sale of IP

- **There are numerous sites where IP can be listed for sale:**
 - Yet2.com
 - Ipvalue.com
 - Ninesigma.net
 - Innocentive.com
 - Birchbob.com
- **IP can even be auctioned**
 - Ocean Tomo



Licensing

- A licence provides the right to make, use or sell patented IP.
 - Defines:
 - *Fields of use*
 - *Geographic areas*
 - *Production and distribution limits*
 - *Economic Limits*
 - Exclusive or Non-Exclusive
 - Stipulates Royalty and Licence Fees
- **Term Sheet → Licence Agreement**

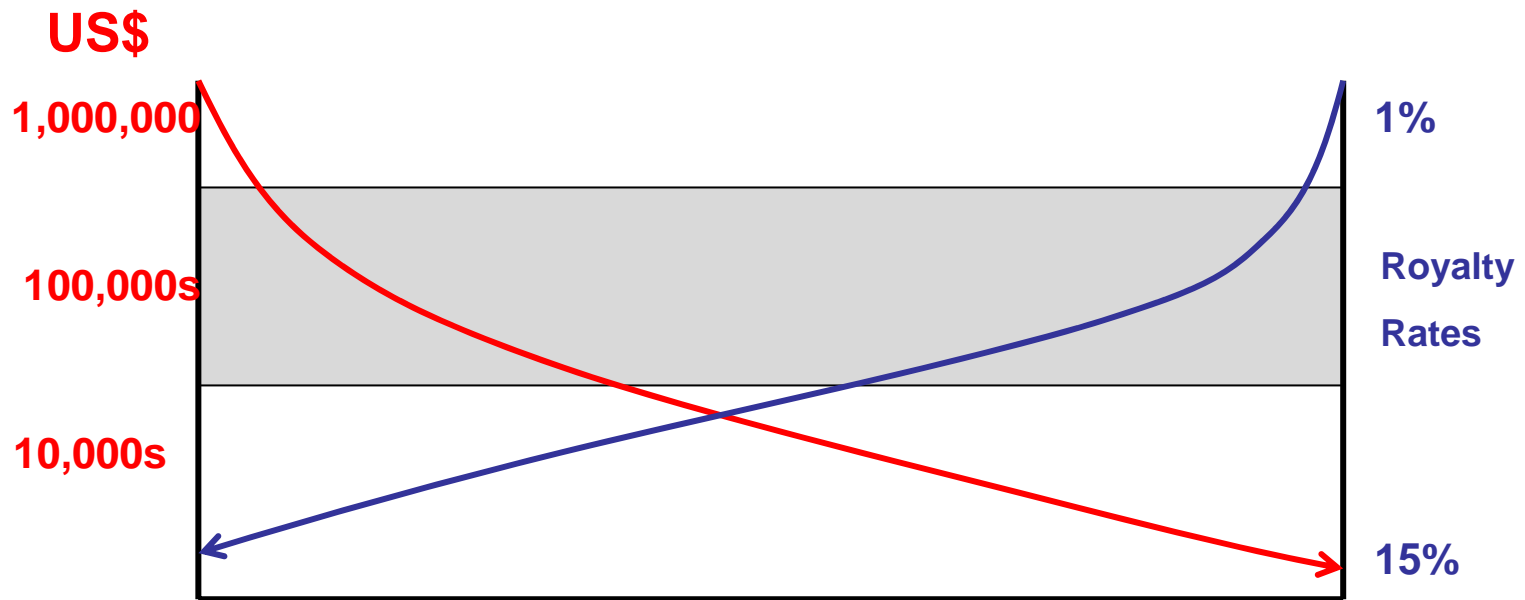


Use a Term Sheet

TERM SHEET	
Licensor	ABC Pty Ltd
Licensee	Megacorp Ltd
Patent	US Patent Number 6,034,638
Terms	Exclusive; field of use
Licence Fee	\$100,000 payable 30 days from signing
Royalty	6% of gross sales pa payable quarterly
Performance	A minimum of \$100,000 in royalties to be achieved in the first year
Sales Targets	Year 2 sales of x, Year 3 sales of y
Patenting	Licensee will pay all ongoing patent expenses
Infringements	Licensee will have first right to prosecute
Etc	Etc



Royalty and Licence Fee Trade-Off



US\$500,000
Royalty 3% pa

US\$100,000
Royalty 6% pa

US\$20,000
Royalty 15% pa



Royalty Rates

TYPICAL ROYALTY RATES INDUSTRY SECTORS	
INDUSTRY	ROYALTY %
Chemicals	4.3% - 4.7%
Internet (including software)	8.8% - 11.8%
Telecom (excluding Media)	4.5% - 4.9%
Consumer Goods, Retail, Leisure	1.0% - 4.5%
Media & Entertainment	5.0% - 9.1%
Food Processing / Agriculture	2.8% - 3.2%
Medical / Health Products	5.0% - 6.1%
Pharmaceuticals & Biotechnology	5.0% - 7.0%
Mining, Energy & Environment	~ 5.0%
Machines / Tools	4.5% - 5.2%
Automotive	~ 3.5%
Electrical & Electronics	~ 4.0%
Semiconductors	3.0% - 4.3%
Computers & Office Equipment	4.0% - 5.3%
Software	6.8% - 11.5%



What should a Director do?

- **The best single first step you can take to optimise IP value is to**

Put innovation as a standing item on the Board agenda



Risk vs. innovation





Innovation in Practice

- **Ongoing Commitment at all levels – Top leadership support** e.g. “Innovation” as a Board agenda item
- **A culture conducive to innovation and continuous learning**
 - Development of competencies in people e.g. creative thinking, problem solving, opportunity identification
 - Open communication and trust
- **Intellectual Property Strategy**
 - Identification, capture, implementation





AIC's 4-step process for Strategic IP Management for Queensland Gov't

- **TRAIN**
 - IP Frameworks, Online IP training
- **HELP TO CREATE**
 - Collaborative technology clinics (e.g. Coonet)
- **IDENTIFY and CAPTURE**
 - IP Audits, IP Repository (e.g. Mines and Energy, QHealth, EPA)
- **EXPLOIT**
 - ICT Commercialisation (Dept. Housing, Emergency Services, Health)



IP checklist

- Identify IP
- Determine who did it
- Make sure you own it
- Is it new?
- Will you infringe?
- Assess commercial worth
- Get the right IP for the technology and business strategy
- Have a strategy before disclosure



IP leakage

What is it?

- Disclosure of information prior to decision to protect (or not)

How?

- Via publications (e.g. journal, abstract, grant applications, thesis, web), conference presentations, non-confidential discussions, use of the invention (even use by you of your own invention)

Consequences?

- Protection of IP may not be possible – commercialisation may be difficult



IP leakage

How do we prevent it?

- **Due consideration before you disclose**
- **Options**
 - Provisional patent application
 - Confidentiality agreements
 - Limited “non enabling” disclosure
 - Trade secrets (proprietary information)



If you choose not to protect your IP

- **It is not normally possible to obtain protection retrospectively**
- **Others may be free to copy and competitors may take advantage of your IP**
 - IBM has a public disclosure bulletin of its minor technical improvements, so others can't patent them (defensive strategy)
- **May lose ability to attract funding for research /prototyping /development of product/service**
- **Investors may not invest (or may not invest as much) if IP is not protected**
- **May hinder opportunities to license, sell or transfer technology**
 - Patents give you a seat at the table; if someone infringes your patent, it forces them to deal with you



Measurement - Balanced Score Card

INNOVATION & LEARNING

KPI	Year 1 Actual	Year 2 Actual	Target
New Product Sales (<2 years) % of Sales	21	25	30
R&D % of Sales	12	14	15
Speed to Market (Months)	14	12	8
Training /Learning (% Payroll)	6	7	9
No. of Suggestions/Ideas generated/employee/annum	14	25	40
No. of Suggestions/Ideas implemented/employee/annum	8	17	35
Employee Satisfaction Index % (Measure of Organisational Climate)	82	86	90



The future of IP

Thoughts from 2008 World Economic Forum

- **Is a new paradigm emerging?**
 - ISPs report 50% of content on P2P networks is pirated
- **Sharing of user-generated content**
 - YouTube, Facebook, and Myspace business models
- **Creative commons and open source**
 - e.g. Mozilla, Wikipedia
 - Open-IP consortium syndication server (www.open-ip.org)
- **Involvement of consumers**
 - e.g. development of mountain bikes
 - Requires a balance between strong IP protection and a framework for consumers



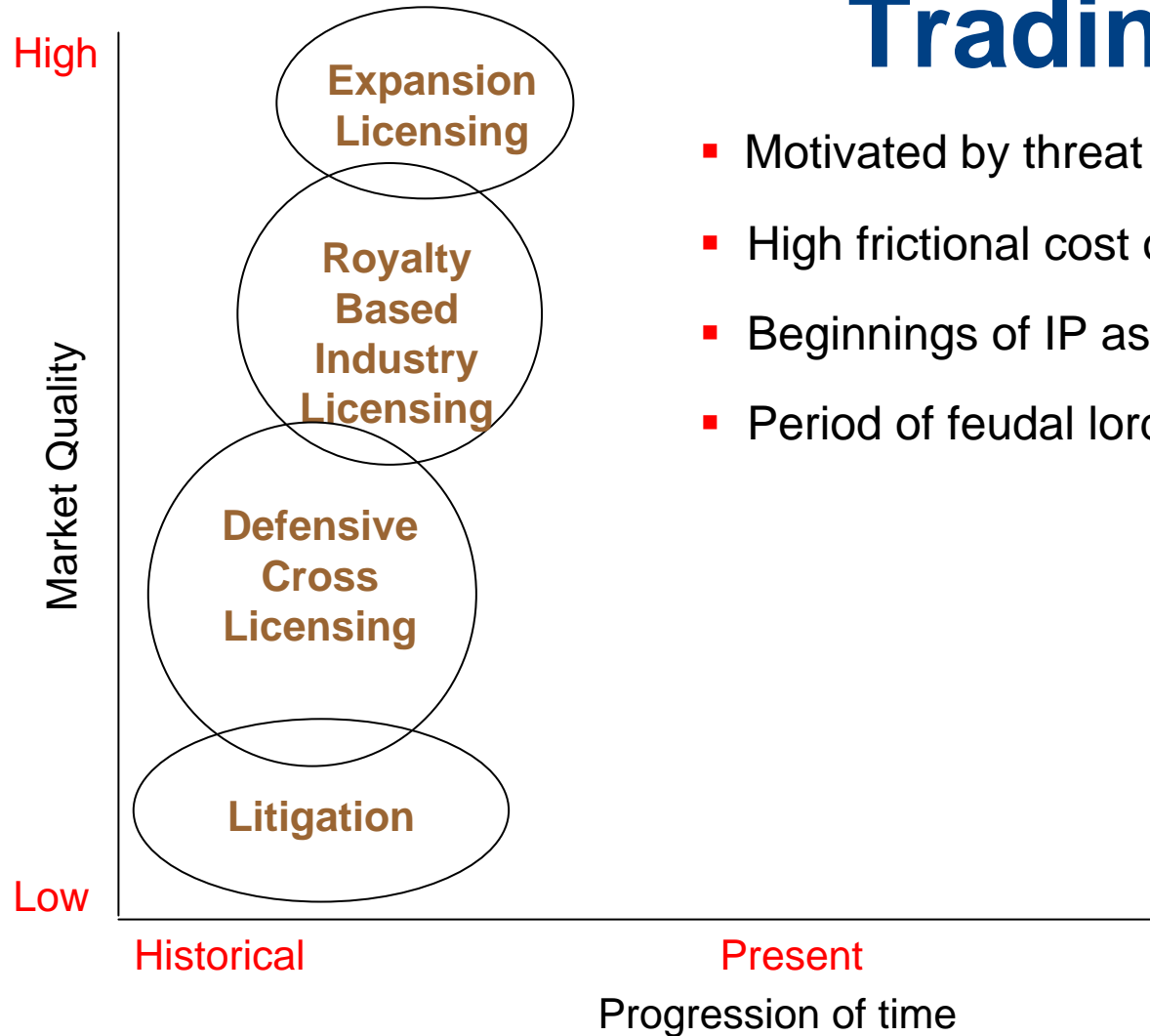
Online Technology Exchange

- Online Technology Exchange is a mechanism to help organisations and individuals licence or trade their IP to Industry and bring licensing opportunities to reality.
- Online Technology Exchanges consist of web portals that bring together licensees/buyers and licensors/sellers
- Fees consist of listing fees and/or brokerage fees





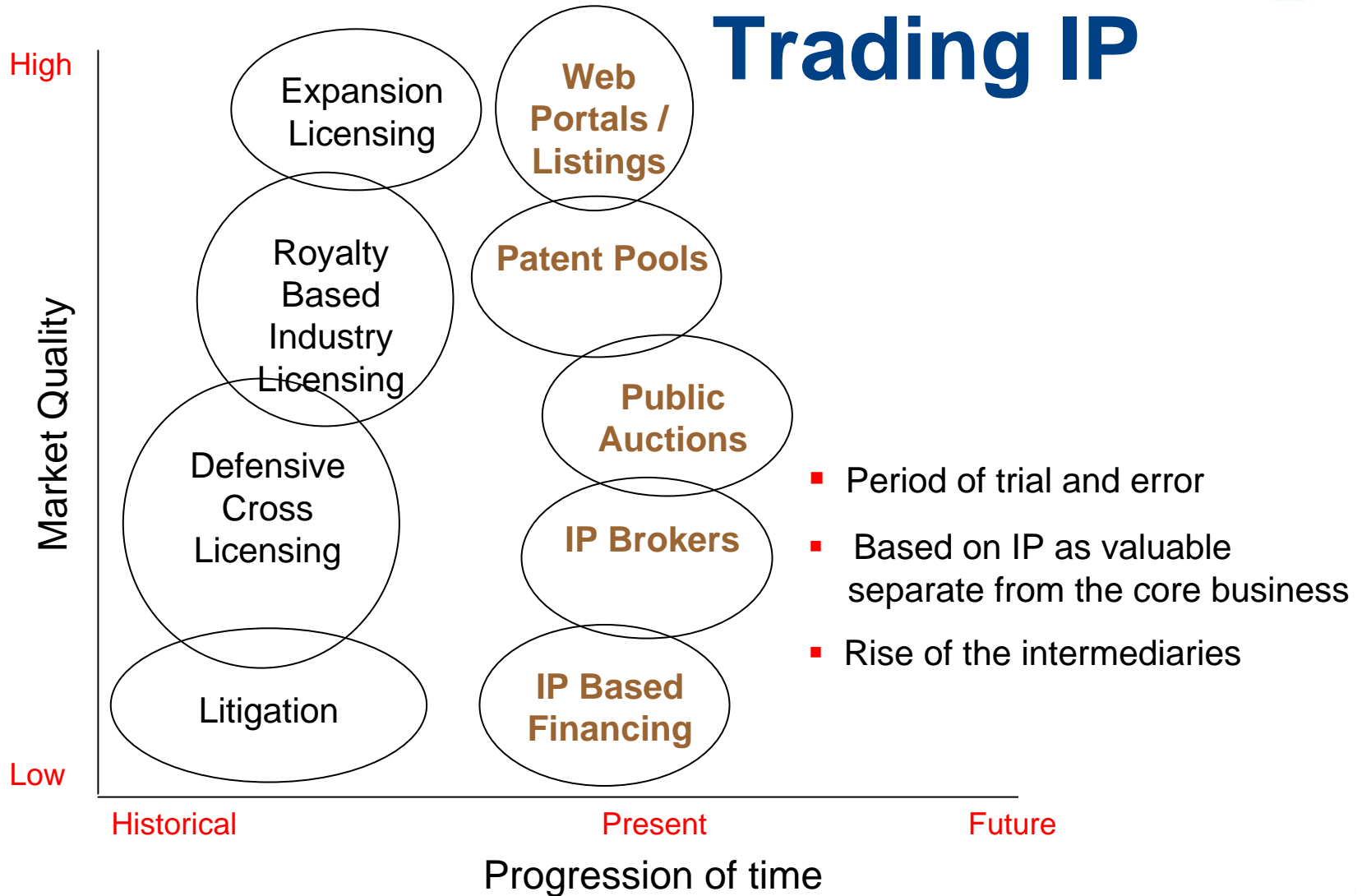
Trading IP

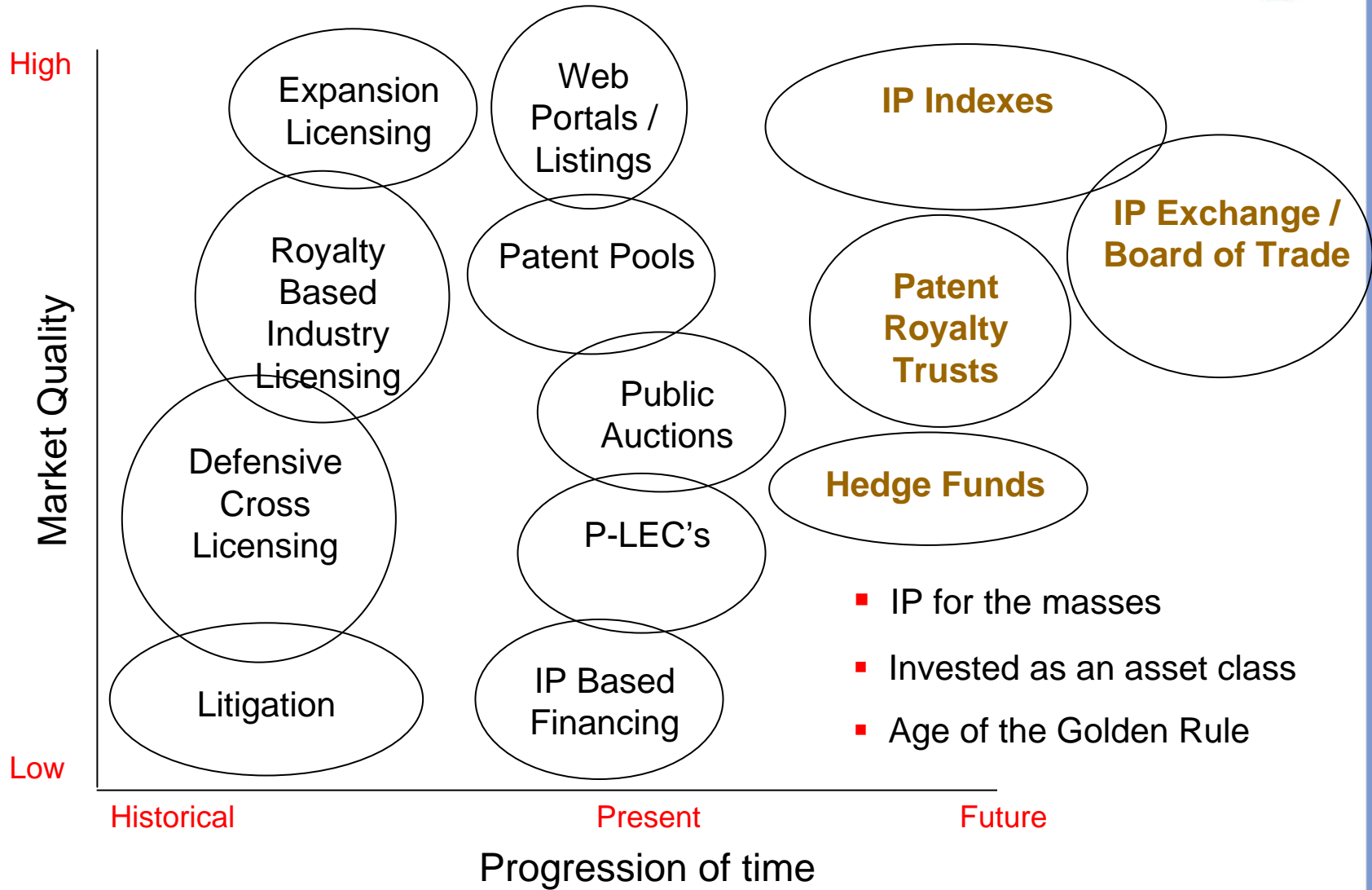


- Motivated by threat of enforcement
- High frictional cost of transactions
- Beginnings of IP as an income stream
- Period of feudal lords



Trading IP







Emergence of Patent Holding Companies

- **NTP**
 - Recently settled with RIM for \$612M (recurring royalty?)
 - On November 5th 2006 announced litigation against Palm
- **Acacia Research**
 - Initiated litigation in a multi-party infringement complaint
 - Licensed companies out of the litigation escalating from pennies to dollars
- **Intellectual Ventures**
 - Established by substantial investments from major corporations
 - Acquiring patents in specific technology areas
 - Ability to move through diligence and funding quickly
- **Forgent**
 - JPEG patent generating annual licensing revenue
 - Settled for \$8M
- **There are many more...**



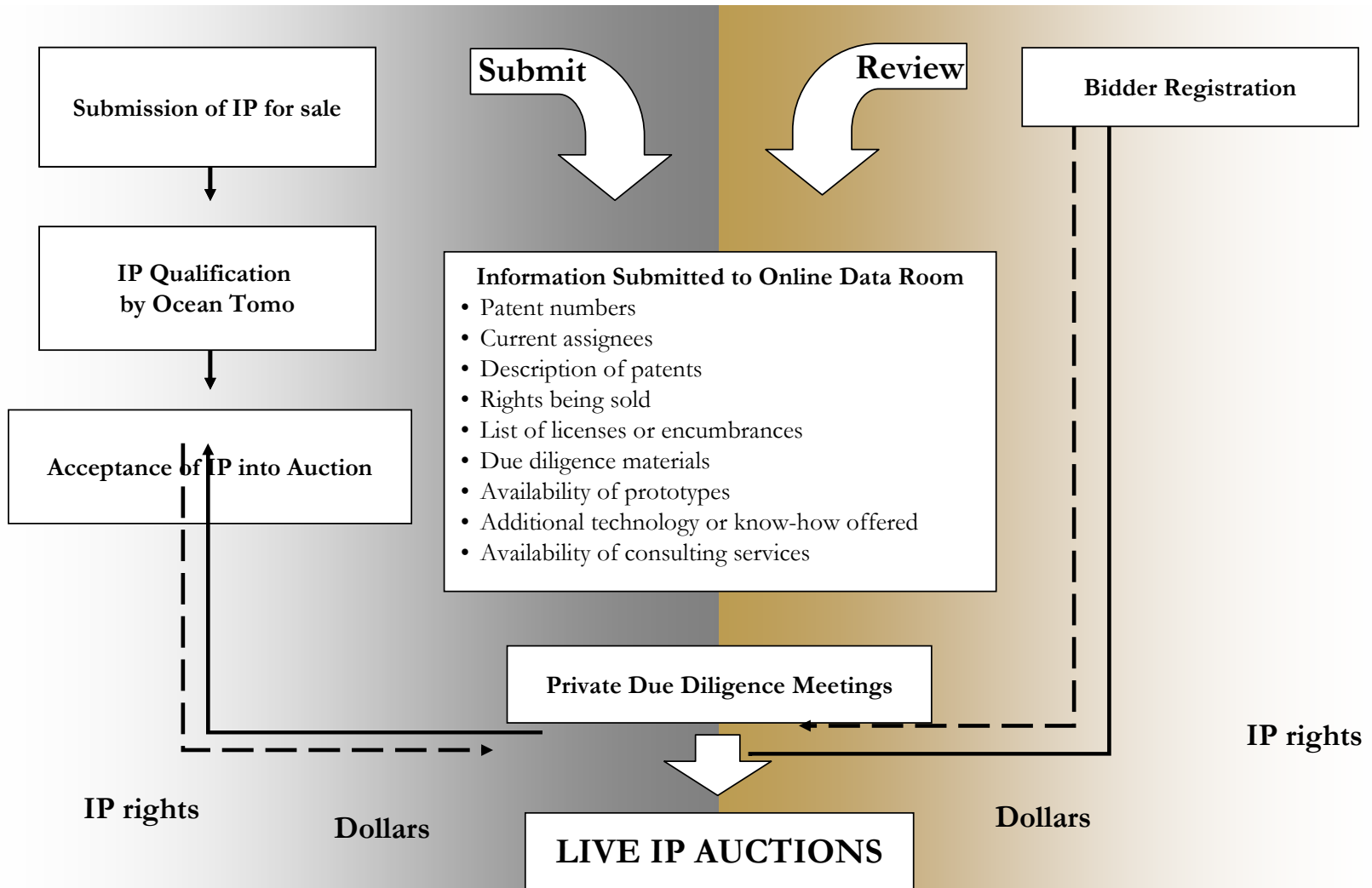
On-line Technology Marketplace Organisations

- **Open-IP.org**
 - Consortium server
- **UTEK®**
 - TechEx
 - UVentures
 - Pax
 - Techno-L
- **Yet2.com**
- **Ninesigma.com**
- **Knowledge Express**
- **2XFR™**
- **CanBiotech**
- **New Idea Network**
- **Pharmalicensing**
- **Pharma-Transfer**
- **PatentAuction.com**
- **BTG**
- **InnoCentive®**
- **Ocean Tomo**





Ocean Tomo





Ocean Tomo



Spring 2006
San Francisco
 On-Floor Patent Lot Sales
\$3,026,100
 Average Patent Lot Sale
\$116,388

Fall 2006
New York
 On-Floor Patent Lot Sales
\$6,066,500
 Average Patent Lot Sale
\$275,750

Spring 2007
Chicago
 On-Floor Patent Lot Sales
\$11,429,000
 Average Patent Lot Sale
\$336,148

Summer 2007
London
 On-Floor Patent Lot Sales
\$8,084,184
 Average Patent Lot Sale
\$578,607

OCEAN TOMO FALL 2007 LIVE IP AUCTION

October 24-25 ■ Palmer House Hilton ■ Chicago



“IP is more about creating the future than protecting the past. Everyone is a potential contributor.”

Check our website for details:

www.ausicom.com

