Valuation and Management of Intangible Assets/Intellectual Properties

Accelerating growth of IPR's in Global Village

5th Annual International Seminar of MarkPatent.Org

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Backdrop

- Identification of Intangible Assets
- Intellectual Property (IP) Definition
- Importance of IP

Identification of Intangible Assets

- Attributes of an intangible asset
  - Identifiable:
    - Separability – the asset is capable of being separated or divided from the acquired entity and sold, transferred, licensed, rented, or exchanged (regardless of whether there is an intent to do so)
    - Contractual rights criteria - It arises from contractual or other legal rights (regardless of whether those rights are transferable or separable from the acquired entity or from other rights and obligations)
  - Measurable
  - Control
  - Future economic benefits

Five categories of Intangible Assets

- **Customer-related assets**
  - Customer contracts and related customer relationships
  - Order or production backlog
  - Non-contractual customer relationships
  - Customer lists
- **Technology-based assets**
  - Patented technology
  - Computer software and mask works
  - Unpatented technologies
  - Databases
  - Trade secrets, such as secret formulas, processes, recipes
- **Artistic-related assets**
  - Plays, operas, ballets
  - Books, magazines, newspapers, other literary works
  - Musical works such as compositions, song lyrics, advertising jingles
  - Pictures, photographs
  - Video and audiovisual material, including motion pictures, music videos, television programs
- **Contract-based assets**
  - Licensing, royalty, standstill agreements
  - Advertising, construction, management, service or supply contracts
  - Lease agreements
  - Construction permits
  - Franchise agreements
  - Operating and broadcast rights
  - Use rights such as drilling, water, air, mineral, timber cutting, and route authorities
  - Servicing contracts such as mortgage servicing contracts
  - Employment contracts
- **Marketing-related assets**
  - Trademarks, trade names
  - Brands
  - Service marks, collective marks, certification marks
  - Trade dress (unique color, shape, or package design)
  - Internet domain names
  - Non-competition agreements

Identification of Intangible Assets

Created by business	Created by law
➢ Assembled workforce	➢ Patents
➢ Advertising programs	➢ Trademarks
➢ Distributor networks	➢ Copyrights
➢ Training materials	➢ Industrial Designs
➢ Customer royalty	➢ Trade secrets and know-how
➢ Supplier contracts	
➢ Management experience	
➢ Subscriber base	
➢ Goodwill	

IP Definition

- Intellectual Property refers to creations of mind:

  inventions, literary and artistic works, symbols, names, images, designs used in commerce, etc.

- Law gives rights to
  - People who create things that embody new ideas or ways of expressing ideas
  - People who use certain marks to distinguish their product or service

- It is this unique characteristic of legal protection that causes intellectual property to be a subset of Intangible Assets of a business enterprise

Importance of IP

- Competitive Advantage of IP

Create Entry Barriers (E.g.: Patents, Trademarks)	+	Cost Savings (E.g.: Know-how, Trade secrets)	+	Revenue Enhancement (E.g.: Brand, Royalties)

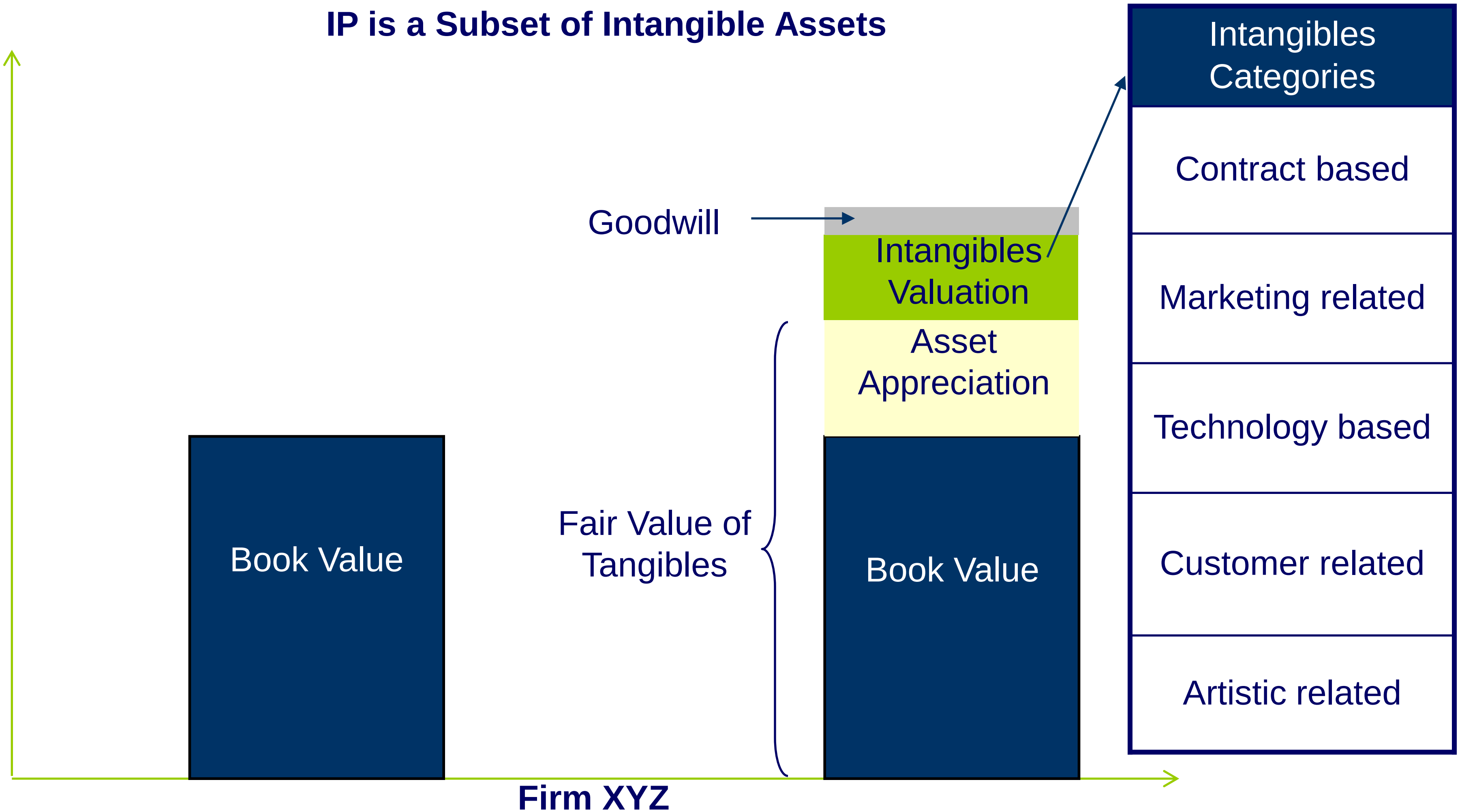
- Strategic Importance of IP Management
  - Orphan Technologies Protection
  - Optimum IP Portfolio Utilization
  - Patent Bracketing, Infringement Royalties

Bottom-line:

Possibility of earning super-normal profits for a reasonably long period of time

Intangible Assets and Enterprise Value

IP is a Subset of Intangible Assets



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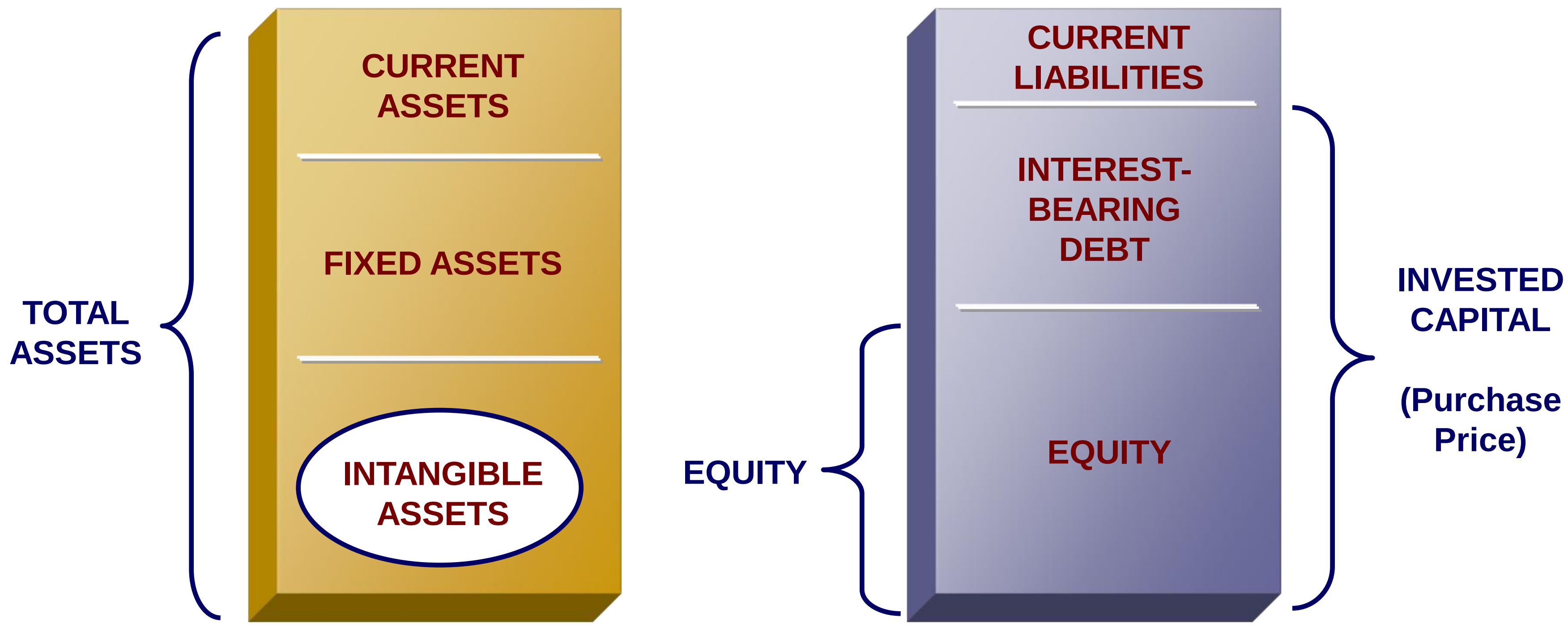
Market Value of Invested Capital (Intangible Assets and Enterprise Value)



Note: Intangible asset value is not recognised when internally generated but is recognised as a result of a business combination

In Summary…

IP is a legal as well as a strategic issue for the firm

Think McGraw-Hill, IBM, BMW…

In Summary…

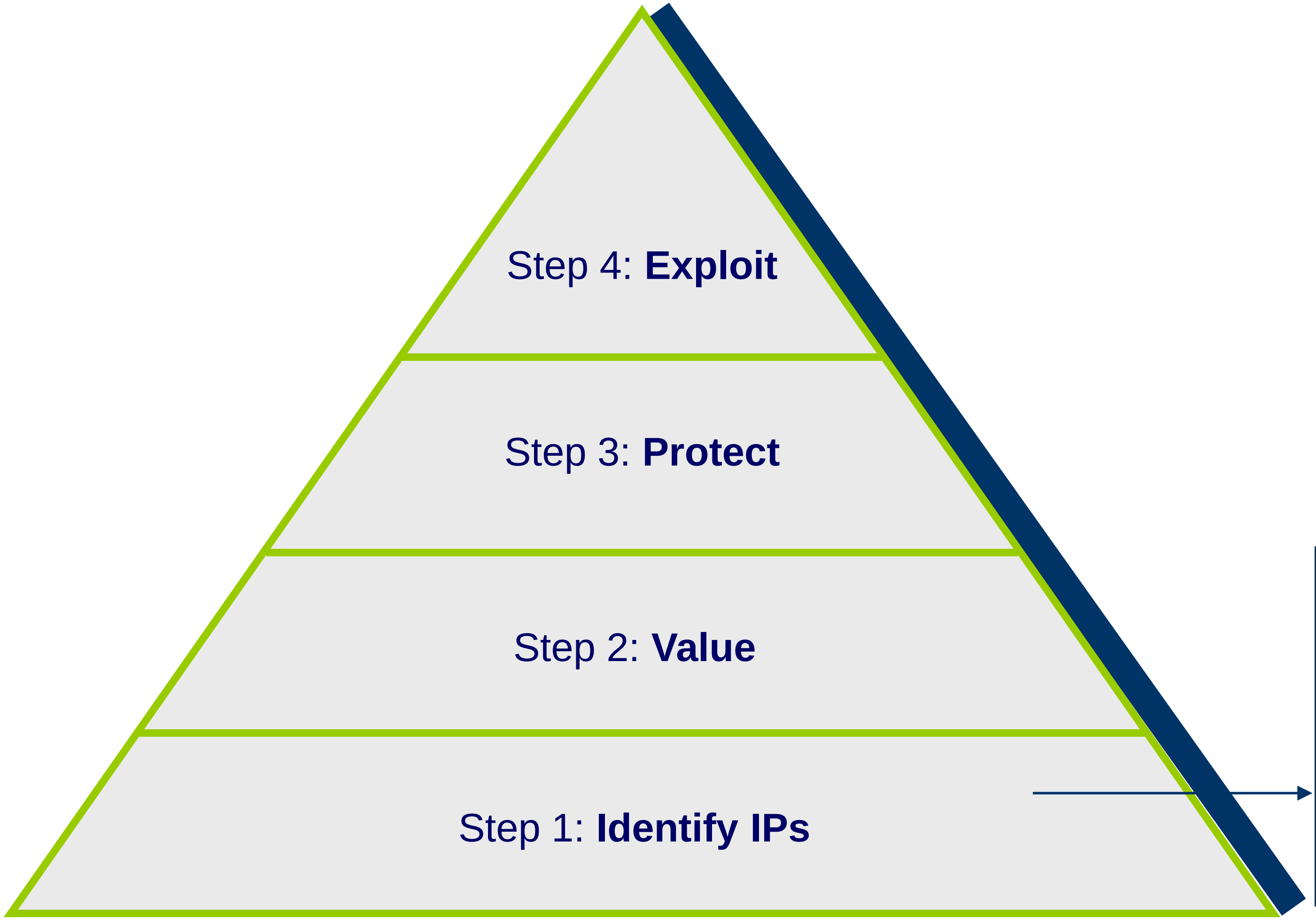
That what is valued can be exploited

Need for IP Valuation (illustrative)

- IFRS-3 (Business combinations) – Purchase Price Allocation
- Corporate valuation for shareholders
- M&A
- Management buy-out or buy-in
- IPO/Fund raising
- Financial Reporting
- Acquisition/Licensing of IP
- Royalty rates
- Transfer pricing
- Litigations
- Technology transfer
- Bankruptcy and reorganization

IP Valuation Strategy

IP Strategy: Value, Protect, Exploit



- Organize internally
- Navigate the IP Regime
- Ask questions: What? Whom? Why?

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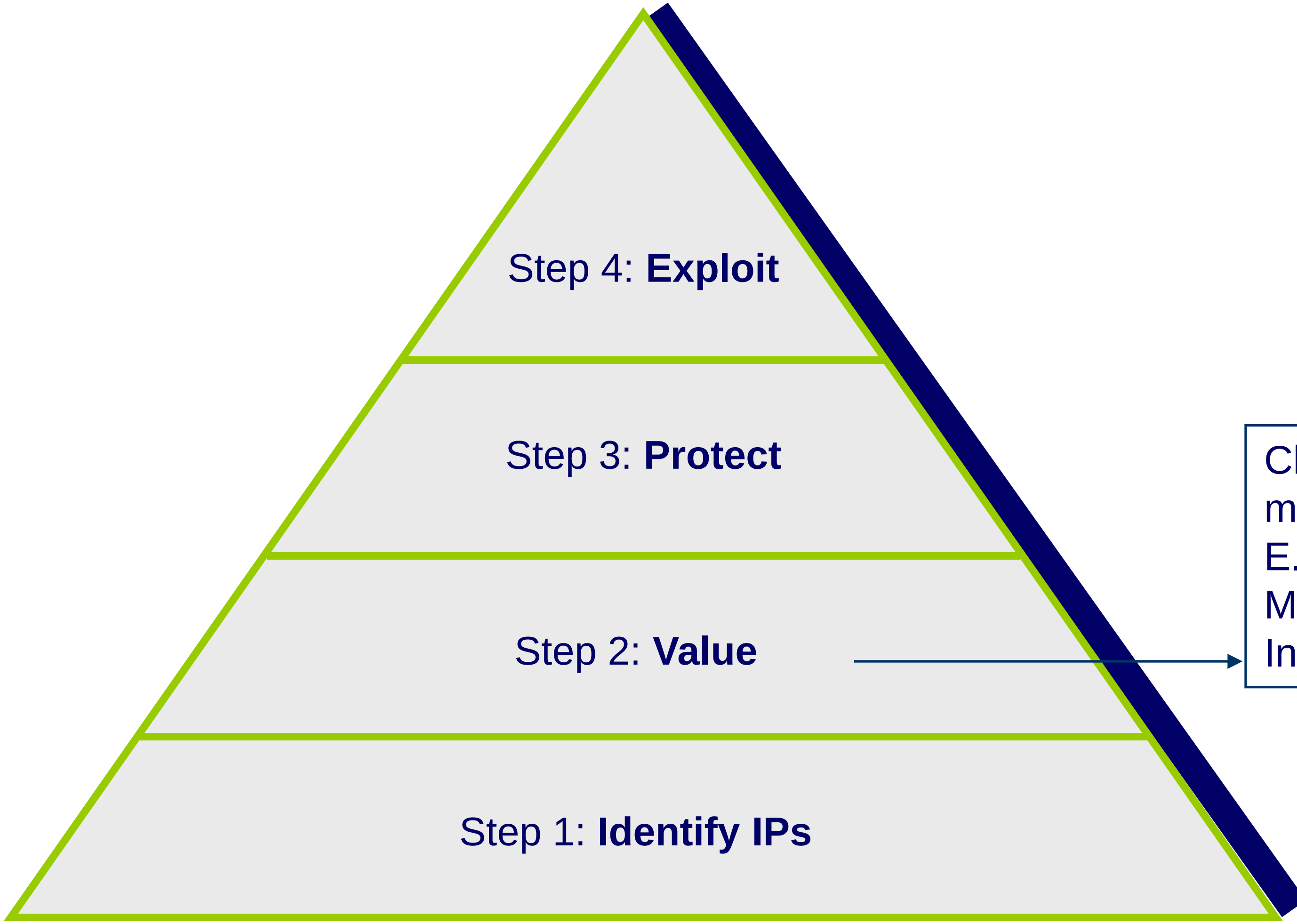
Step 1: Identify IPs

- Identify IPs to Value, Protect, Exploit (VPE)
  - Design
  - Process
  - Software
  - Know-how
  - Trademarks
  - Brand
  - Formulations
  - Others

IP Strategy: Value, Protect, Exploit



Choose a valuation method
E.g.: Cost Approach, Market Approach, Income Approach

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Definitions

- Fair Value (as defined in Appendix A of IFRS 3):

  "the amount for which an asset could be exchanged or a liability settled, in a current transaction between knowledgeable, willing parties, in an arm's length transaction"

- Fair Value (as defined in Appendix F - Glossary of SFAS 141):

  "the amount at which an asset (or liability) could be bought (or incurred) in a current transaction between willing parties, that is, other than in a forced or liquidation sale"

- Intangible Asset [1]:

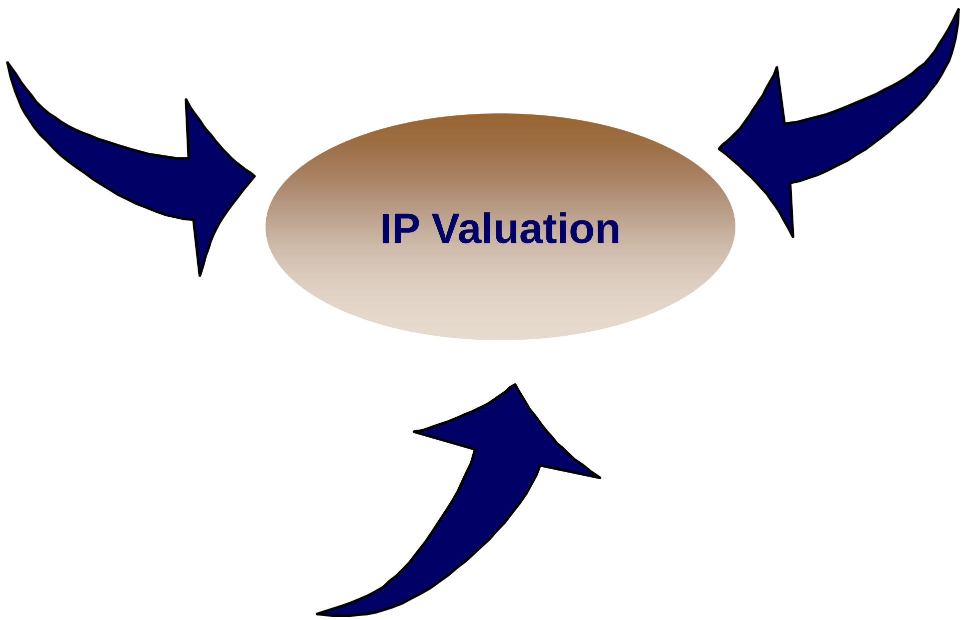
  "the elements of a business enterprise that exist in addition to monetary and tangible assets"

[1] *Valuation of Intellectual Property and Intangible Assets*, Third Edition, Gordon V. Smith and Russell L. Parr, Page 15

Valuation Approaches

Income / Economic Value Approach
- Incremental Cash Flow
- Excess Earnings / Discounted Cash Flows
- Relief from Royalty

Cost Approach
- Historical Cost
- Replacement Cost



Market Approach

Valuation Approaches

- Market Approach

  In the market approach, recent sales and listings of comparable companies or assets are gathered and analyzed. If necessary, adjustments are then applied to the observed pricing multiples to recognize differences in characteristics between the subject company or asset and the comparable companies or assets

- Income Approach

  Based on the premise that the value of a business or asset is the present value of the future earning capacity that is available for distribution to investors in that business or asset. The discount rate should consider the time value of money, inflation and the risk inherent in ownership of the interest being valued

  – Incremental Cash Flow Method

    – Involves valuing the incremental profits expected to be generated by a business in future, if any, using the IP and comparing it with the business not utilising the comparable IP

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Valuation Approaches

- Income Approach (Cont)
  - Discounted Cash Flow Method ("DCF")
    - Involves forecasting the IP cash flows and then discounting it back to a present value at an appropriate discount rate
    - Adding the amortisation tax shield to the present value of cash flows represents the fair value of IP
  - Excess Earnings Method
    - Predicated on the basis that the value of an IP is the present value of the future cash earnings it generates, net of a reasonable return on other assets also contributing to that stream of earnings
  - Relief-From-Royalty Method ("RFR")
    - Entails quantifying royalty payments, which would be required if the asset was owned by a third party and licensed to a company. The imputed royalty payment stream is then adjusted for taxes and discounted to present value using a risk-adjusted discount rate. The sum of the present values along with an adjustment for the tax amortisation benefit results in the fair value

Valuation Approaches

- Cost Approach
  - The discrete valuation of an asset using a cost approach is based upon the concept of replacement as an indicator of value
  - A prudent investor would pay no more for an asset than the amount required to replace the asset new
  - Establishes value based on the cost of reproducing or replacing the asset, less depreciation from physical deterioration and functional obsolescence, if present and measurable

Market Approach

Comparable Market Value Approach

- Value of an IP = Price paid for comparable IP as a part of arm’s length transactions

- Market Multiple
  – The transaction price, as a ratio of an asset attribute such as sales, is used to derive a market multiple
  – This market multiple is then applied to the attribute of the asset being valued

Market Value Approach

- Requirements
  - Active market involving *comparable* property
  - Past transactions of comparable property
  - Price information at which comparable property exchanged
  - Arm's length transactions between independent parties

- Factors to be considered while comparing
  - Industry
  - Market Share
  - Profitability
  - Impact of New Technologies
  - Barriers to Entry
  - Growth Prospects
  - Strength of Legal Protection
  - Remaining Economic Life

Market Approach: Pros & Cons

Pros	Cons
• Relatively easy to apply • Conceptually attractive • Provides evidence of value	• Most of the information is not publicly available • Low Frequency of comparable transactions • Each intangible transaction is unique • Information about third party transactions involving comparable property is scarce • Transactions of specific IPs are scarce • Transactions used may relate to IP whose use may not represent the best (optimal) use of the IP to be valued [Parr and Smith, 1994] • Risk of perpetuating sub-optimal decisions

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Cost Approach

Cost Approach

Value
(Rs)

Historical cost Method

Assumptions :

- Cost to purchase or develop new property is commensurate with the economic value of service

Replacement cost method

Assumptions :

- An investor would pay no more to purchase an asset than would be required to reproduce the asset

Historical Cost Method

- State historical costs incurred to develop an IP

- These costs indicate the total cost of creating the IP till today

Replacement Cost Method

- Cost of developing an IP with similar utility but may have a different form/appearance

  <u>Utility:</u> Economic concept. Ability of IP to provide an amount of satisfaction equivalent to that of the actual IP

- Limitations
  - No direct correlation between expenditure and economic benefit. For example,
    - Early stage R&D and patenting can be very costly, but the process or product may never be commercialized
    - Minimal investment in IP, but sudden market growth leads to increase in revenues
  - Excludes future economic benefits
  - Difficult to measure utility

Cost Approach: Pros & Cons

Pros	Cons
• Good for internally developed intangibles or in liquidation scenario • When comparable market data is not available • When intangible is not income producing	• Requires numerous adjustment to financial data • Difficult to apply if historical records are not available • No direct correlation between price and value • Risk is not factored

Income Approach

Income Approach

- Based on the premise that the value of a business or asset is the present value of the future earning capacity/economic benefit that is available for distribution to investors in that business or asset

- The discount rate should consider the time value of money, inflation and the risk inherent in ownership of the interest being valued

- The discount rate for IP and other Intangibles should be higher than the overall discount rate for the business, as intangibles are perceived to be more riskier than the overall business and would therefore attract a higher return

Measures of Economic Benefits

Approach	Economic Measure/s
IP Value as a % of Enterprise Value	•Gross or Net Revenues •EBITDA •Free Cash Flow
Quantifying incremental levels of Economic income	•Excess Operating Profit •Excess Revenues •Excess Free Cash Flow
Savings in Economic Cost	•Cost Savings
Relief from hypothetical royalty payments	•Royalty Savings

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Alternative Approaches

BRAND EVALUATION MODEL
Brand Strength Determination

Analyze and assess the brand strength and quantify the brand strength in terms of a score (%)

Elements / Factors	Max. Score	Brand Score
Market	15	___
Stability	10	___
Leadership	25	___
Trend	10	___
Support	10	___
Geographical reach	20	___
Protection	10	___
Total	**100**	##

BRAND EVALUATION MODEL
Brand Strength Determination

- Use of **"S curve"** to convert the "Score" into a "Discount Rate"

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BRAND EVALUATION MODEL
Brand Strength Determination

Key Factors

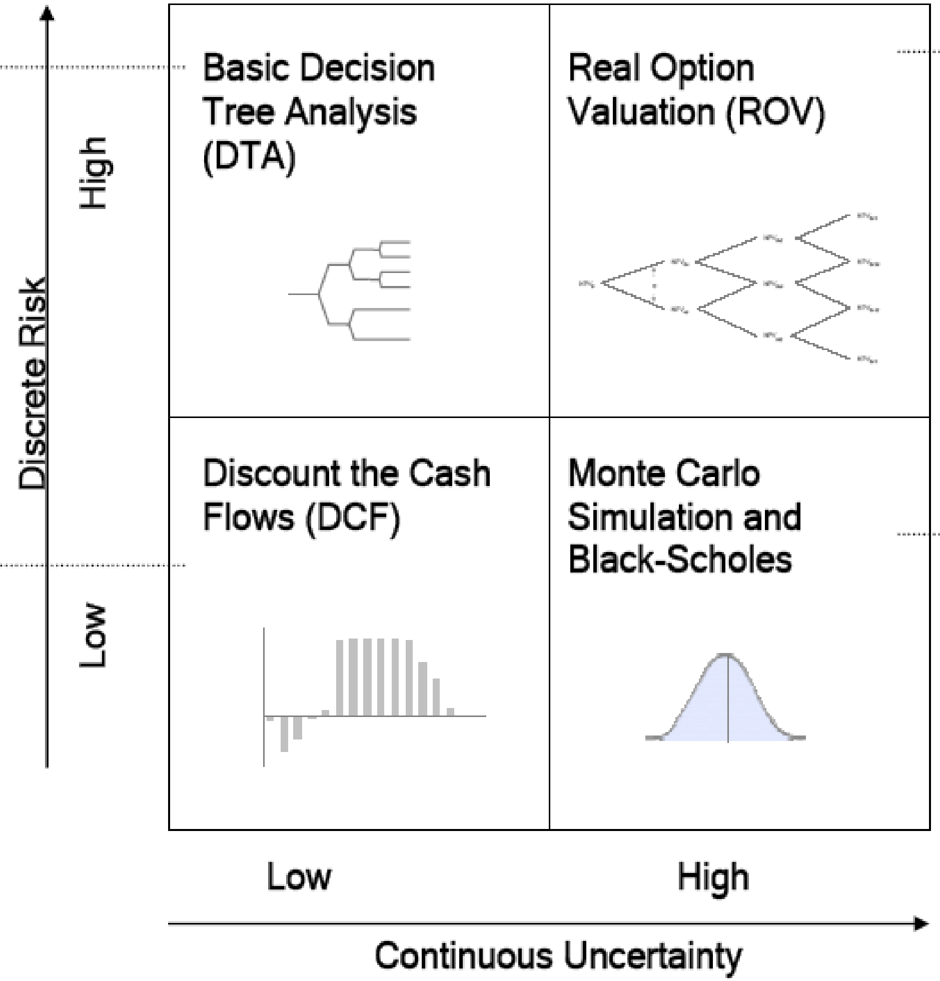
- The top of the curve is based on the principle that even a perfect brand (scoring 100) should attract a discount rate somewhat higher than the long term real rate of return on a risk free investment

- A brand scoring zero attracts an infinite discount rate, implying no brand value

Accounting for Risk & Flexibility

Appropriate if the only large unknowns are risks. For instance, if the market is predictable, as are R&D time and cost, but R&D outcome is in question.

Appropriate if there are no large unknowns. Perhaps if the molecule has only one indication and there are no re-trial options.



Appropriate in most biotech cases, where there is both R&D risk and uncertain market success

Appropriate if the market uncertainty dominates the R&D risk. Also if milestones can't yet be defined and/or indications can't yet be identified

Source: Crystal ball conference

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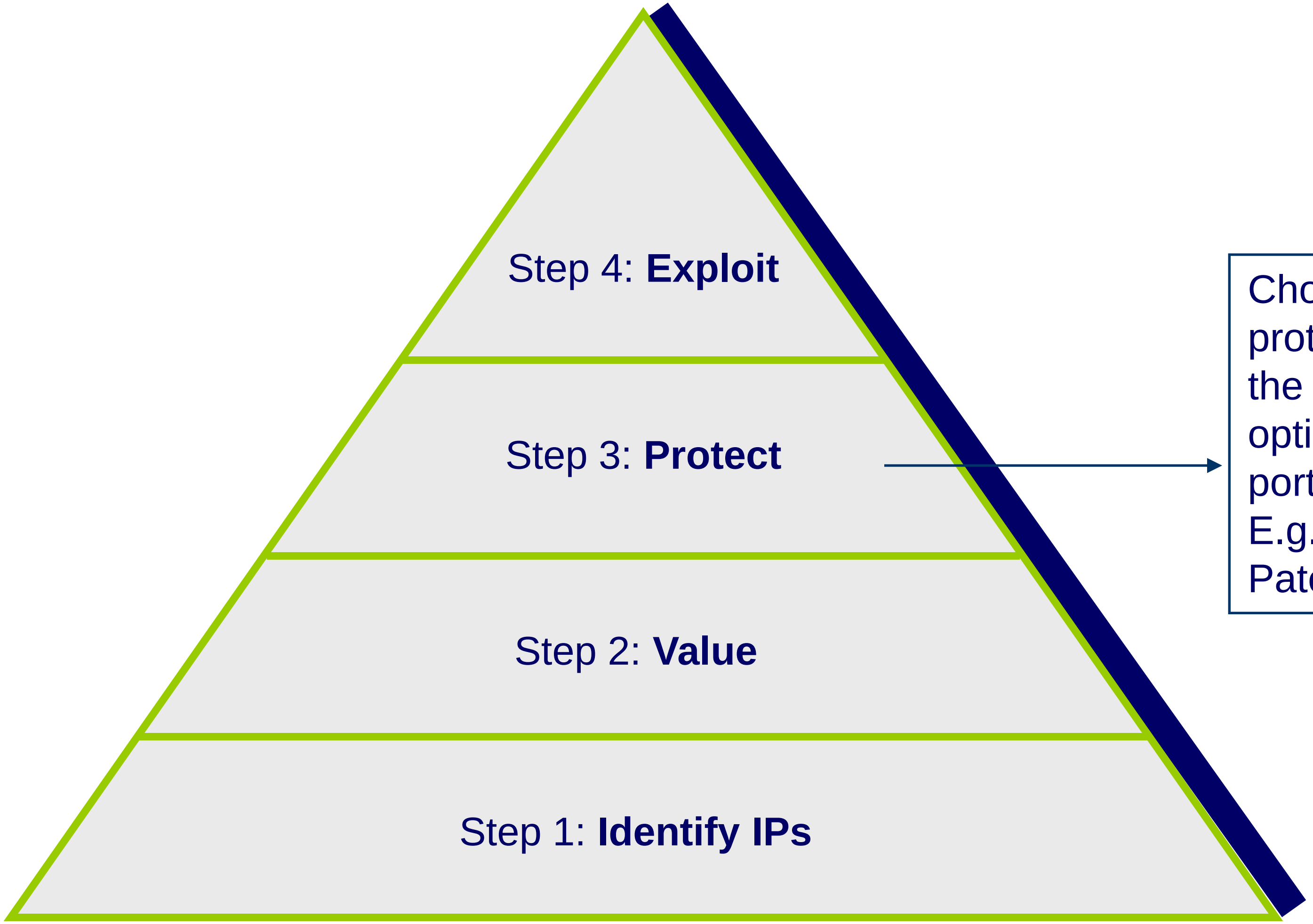
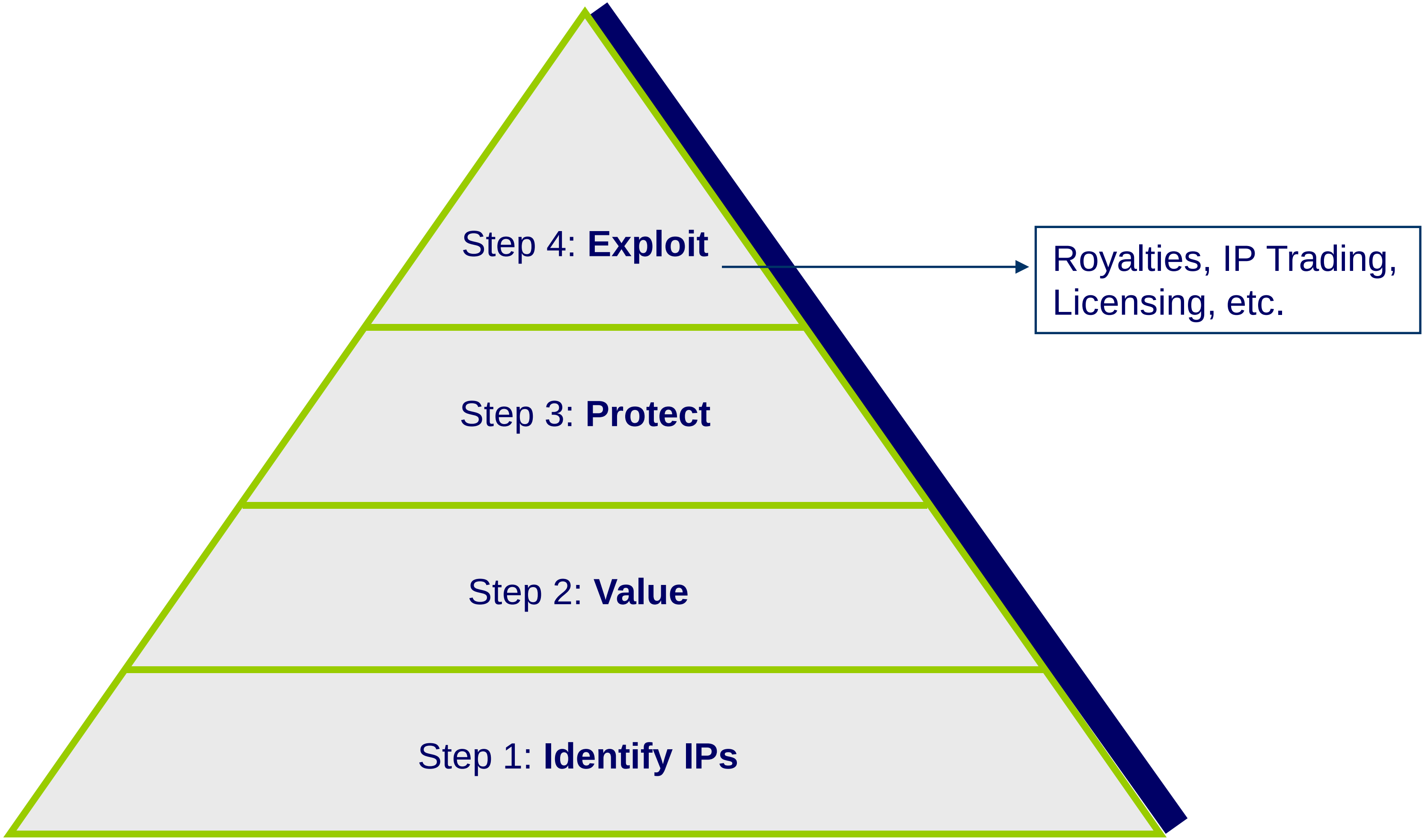
IP Strategy: Value, Protect, Exploit



Choose a method to protect the IPs with the object of optimizing the portfolio:
E.g.: Trade secret, Patent, Trade Mark

IP Strategy: Value, Protect, Exploit



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IP Strategy: Bringing All Together

Identification	Valuation	Protection	**Exploitation**
•Design •Process •Software •Know-how •Trademarks •Brand •Formulations	Approaches: •Cost •Market •Income (Economic Value)	•Patents •Copyrights •Design •Trademarks •Publishing Rights	•IP Trading •M&A •IPO/Fund raising •Financial Reporting •Licensing-In •Licensing-Out •Contract/ Royalty rates •Transfer Pricing •Litigations •Technology Transfer

In Summary…

Value, protect and exploit (VPE) your IP to create a sustainable competitive advantage

Illustrative Mapping

IP	Valuation Techniques
Brands, Trademarks, Patents, Know-how	• Priority (1) - Relief-from-Royalty • Priority (2) - Excess Earnings • Priority (3) - Market Approach
Trade Secrets, Industrial Design, Permits, Business Processes	• Priority (1) - Excess Earnings
Client Lists	• Priority (1) – Market

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IP Management

IP Management

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Concluding Remarks

Concluding Remarks

- To be able to reap benefits out of IP, a sound IP management programme is required. It calls for coordinated efforts from Finance, IP attorney and technology personnel
- Any valuation method is merely a starting point or a help towards better decision making
- Adopt as many appropriate valuation techniques as possible, understand the pros and cons of each valuation method, and make the best estimate
- That what is valued can be exploited

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Thank You

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